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APPENDIX 2 ACTION PLAN

4.0 AGREEMENT MANAGEMENT

4.1 PROJECT MANAGER ROLE

The DOE and the lead regulatory agency(ies) (see Section 5.6 for discussion of lead regulatory agency) shall each designate an individual as a project manager for each operable unit, TSD group/unit or specific milestone to be completed under this Agreement. Project managers will only be identified for those areas where effort is ongoing or planned in the near future. A listing of currently assigned project managers shall be maintained and distributed to all parties by the DOE. Each project manager shall represent his/her respective party and keep his/her agency informed on the status and any problems that arise.

Project managers from each party must have experience and capabilities necessary to carry out their assigned responsibilities. The lead regulatory agency(ies) will assign a project manager with the experience and capability to provide all the routine regulatory oversight necessary for DOE's successful completion of the assigned milestone. DOE will assign a project manager with the experience and capability to manage the project, to oversee the actions of contractor staff, and to maintain regulatory compliance necessary to the completion of the milestone. The project manager from the lead regulatory agency (see Section 5.6 for discussion of lead regulatory agency) shall be responsible for regulatory oversight of all activities required by this action plan for completion of that milestone.

The primary responsibilities of the project managers are to implement the scope, terms, and conditions of the Agreement, direct and provide guidance to their respective contractors and staff, maintain effective communication among each other, and report status to their respective management.

Subject to the limitations set forth in Article XXXVII (Access) of the Agreement and, in addition to other authorities and responsibilities, the Ecology and EPA project managers, or their designated representative(s), shall have the authority to: (1) notify and/or take/issue compliance actions deemed necessary should DOE and/or its contractors fail to comply with Agreement terms, (2) take samples, request split samples of the DOE samples, and ensure that work is performed

properly and pursuant to the EPA protocols as well as pursuant to the attachments and plans incorporated into this Agreement; (3) observe all activities performed pursuant to this Agreement, take photographs, and make sure other reports are prepared on the progress of the work as the project manager deems appropriate; and (4) review records, files, and documents relevant to this Agreement. In addition, the project manager for the lead regulatory agency has authority to require changes to any procedural, design, or specification document that is referenced in a supporting work plan. Such required changes will be subject to the appropriate dispute resolution process as specified in the Agreement.

The DOE project managers or their representatives shall be physically present on the Hanford Site or reasonably available to supervise work performed at the Hanford Site during the performance of work pursuant to this Agreement and shall be available to the EPA and Ecology project manager for the pendency of this Agreement.

Other authorities and responsibilities are identified in the context of this action plan. The project managers may delegate their authority and responsibilities with notice to the other affected party(ies).

Project managers for DOE and the lead regulatory agency shall meet to discuss progress (including the status of all key project tasks), address issues, and review near-term plans pertaining to their respective projects, milestones, operable units and/or TSD groups/units. For TSD groups and operable units, meetings shall be held monthly, unless the project managers agree that a meeting is not appropriate. The meetings shall emphasize technical issues and work progress. The assigned DOE project manager shall provide current work schedule information including project task element schedule status and associated "float" (defined as the projected number of days until a task becomes critical path), marked up schedules from the RI/FS work plan, closure plan, etc., and appropriate detailed near-term schedules prior to the meeting. The schedules shall address all ongoing activities associated with the milestones, operable unit or separate TSD groups/units, to include actions on specific units (e.g., sampling). These schedules will be provided to all parties and reviewed at the meeting. Any agreements and commitments (within the project manager's level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE project manager summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments
- Any new agreements and commitments
- Schedules (with current status noted)
- Any approved changes signed off at the meeting in accordance with Section 12.2

In the event that the lead regulatory agency project manager forms an opinion that DOE actions or failure to act, jeopardizes completion of an Agreement milestone, they shall notify DOE of that fact in a timely manner. Such notification shall be in writing and shall provide the project manager's detailed rationale for the opinion. On receipt, DOE's project manager will reply in writing within 15 working days. Such reply will either assure that compliance is intact and that DOE's ability to meet Agreement milestones has not been unduly jeopardized, or will describe in detail, expected impact(s),

causative factors, and action(s) DOE has/is taking in response.

4.2 INTERAGENCY MANAGEMENT INTEGRATION TEAM

The DOE, EPA and Ecology shall each designate a representative to act as a member of the Interagency Management Integration Team (IAMIT). The DOE representative shall be an Assistant Manager. The EPA representative shall be the Project Manager, Hanford Project Office. The Ecology representative shall be the Program Manager for the Nuclear Waste Program. The assigned representatives acting as members of the IAMIT shall be reasonably available in the Tri-Cities to perform the roles described in this section. Roles of the IAMIT or their designated representatives shall include the following responsibilities.

- The IAMIT shall be the first level of formal dispute resolution for those issues which remain unresolved by the project managers. It is the role of the IAMIT to act decisively and effectively to resolve issues within their respective authorities.
- The IAMIT shall have approval authority for changes to the Agreement as specified in Section 12.0 of this Action Plan.
- The IAMIT shall act as the primary interface with the established Hanford Advisory Board.
- The IAMIT shall serve as the primary point of focus for the three parties for discussion and resolution of budget issues.

IAMIT meetings will be conducted as needed, with a focus on making decisions to ensure progress in meeting Agreement milestones and to resolve disputes. IAMIT meetings to resolve disputes, to consider change requests, or to take other action on a milestone, operable unit or TSD unit will generally only involve the affected lead regulatory agency and DOE IAMIT members. A meeting of the IAMIT members of all 3 parties shall be conducted at least quarterly to discuss matters of concern to all three parties. Any agreements and commitments (within the IAMIT level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments
- Any new agreements and commitments
- Schedules (with current status noted)
- Any approved changes signed off at the meeting in accordance with Section 12.2.

4.3 SENIOR EXECUTIVE COMMITTEE

The DOE, EPA and Ecology shall each designate a representative to act as a member of the Senior Executive Committee (SEC). The DOE representative shall be the Deputy Manager for the Hanford Site. The EPA representative shall be the Director, Office of Environmental Clean Up. The Ecology representative shall be the Assistant Director for Waste Management.

SEC meetings shall be conducted as needed, with a focus on making decisions to ensure progress in meeting Agreement milestones and to resolve disputes. SEC meetings to resolve disputes, will generally only involve the affected lead regulatory agency and DOE SEC member. A meeting of the SEC members of all 3 parties shall be conducted as necessary.

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5.0 INTERFACE OF REGULATORY AUTHORITIES

5.1 REGULATORY PROGRAMS

The RCRA, CERCLA, and State Dangerous Waste Program overlap in many areas. In general, CERCLA was created by Congress to respond to the release of hazardous substances and to investigate and respond to releases and potential releases from past-practice activities. The RCRA and State Dangerous Waste Program were created to prevent releases at active facilities that generate, store, treat, transport, or dispose of hazardous wastes or hazardous constituents. The RCRA, as amended by HSWA, also provides for corrective action for releases at RCRA facilities regardless of time of release. This section is intended to clarify how these various programs will interface to achieve an efficient regulatory program.

Regulatory authority shall remain with the regulatory agency having legal authority for those decisions, regardless of whether that agency is the lead regulatory agency for the work (see Section 5.6 for lead regulatory agency concept). The lead regulatory agency shall oversee the work, and brief and obtain any necessary approvals from the agency with regulatory authority. For example, where Ecology is the lead regulatory agency at a CERCLA site, it shall brief EPA as necessary to obtain EPA approval before a remedial action is selected.

5.2 CATEGORIES OF WASTE UNITS

There are three categories of units and related statutory or regulatory authorities that will be addressed under this action plan. These categories are TSD unit, RCRA past-practice (RPP) unit, and CERCLA past-practice (CPP) unit, and are defined as follows.

5.2.1 Treatment, Storage, and Disposal Unit

This is a unit that has treated, stored or disposed of RCRA hazardous waste after November 19, 1980 or State-only dangerous waste, after March 12, 1982, or that is currently treating, storing, or disposing of RCRA hazardous waste or State-only dangerous waste. It also includes units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200

WAC (waste accumulation times that do not require permitting). The TSD units are those that must receive a RCRA permit for operation or postclosure care and/or that must be closed to meet State standards. Section 6.0 describes the processes to be used to permit and/or close TSD units.

5.2.2 RCRA Past-Practice Unit

The purpose of this category is to address releases of RCRA hazardous wastes or constituents from sources other than TSD units at the Hanford Site regardless of the date of waste receipt at the unit. This includes single-incident releases at any location on the Site and corrective action beyond the Site boundary. Corrective action will be conducted under the authorized state HWMA corrective action program. Corrective action authority is based on three separate components of HSWA as follows:

- RCRA Section 3004(u). Section 3004(u) of RCRA provides authority for corrective action at solid waste management units at a facility seeking a RCRA permit. This includes units that received any solid waste, as defined in 40 CFR Part 261.2, including RCRA hazardous wastes or hazardous constituents, at any time. Hazardous constituents are those that are listed in 40 CFR Part 261 Appendix VIII. Those waste management units that will be addressed as RPP units under Section 3004(u) are so designated in Appendix C.
- RCRA Section 3004(v). RCRA Section 3004(v) specifies that corrective action to address releases from a RCRA facility will extend beyond the physical boundaries of the Site, to the extent necessary to protect human health and the environment. Section 3004(v) does not apply to releases within the boundary of the Hanford Site.
- RCRA Section 3008(h). RCRA Section 3008(h) is a broad corrective action authority that is applicable to the Hanford Site as long as RCRA interim status is maintained. It is more expansive than RCRA Section 3004(u), in that it can be used to address corrective action for any release of RCRA hazardous waste or constituents, including single-spill incidents, and can be used to address releases that migrate offsite.

5.2.3 CERCLA Past-Practice Unit

The CPP units include units that have received hazardous substances, as defined by CERCLA, irrespective of the date such hazardous substances were placed at the unit. Those waste management units that will be addressed as CPP units are so designated in Appendix C.

For the purposes of this action plan, it is necessary to distinguish between a CPP unit, a RPP unit, and a TSD unit. Any TSD unit, as defined in Section 5.2.1, will be classified as a TSD unit, rather than a CERCLA unit, even if it is investigated in conjunction with CPP units. The CPP and RPP units will be distinguished in accordance with Section 5.4.

5.3 MANAGEMENT OF TREATMENT, STORAGE, AND DISPOSAL UNITS

As previously stated, TSD units are identified in Appendix B. Any additional TSD units that are subsequently identified shall be added to Appendix B in accordance with the process described in Section 12.2.

Unless closed in accordance with Sections 6.3.1 or 6.3.3, TSD units shall be permitted for

either operation or postclosure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and HSWA. Prior to permitting or closure of TSD units, DOE shall achieve (in accordance with the work schedule contained in Appendix D) and maintain compliance with applicable interim status requirements. All TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with 173-303-610 WAC.

5.4 MANAGEMENT OF PAST-PRACTICE UNITS

This section describes the rationale for placing units in either a RCRA or a CERCLA past-practice category for corrective action as defined below. In many cases, either authority could be used with comparable results. The categories are as follows:

- The CPP units, (see Section 7.3)
- The RPP units, under the authorized state corrective action program (see Section 7.4).

Since the Hanford Site was proposed for inclusion on the National Priorities List (NPL) (Federal Register, June 24, 1988), and was placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989), the parties agree that any units managed as RPP units shall address all CERCLA hazardous substances for the purposes of corrective action. The parties agree that all of the wastes regulated under the State Dangerous Waste Program (173-303 WAC) shall be addressed as part of any CERCLA response action or RCRA corrective action.

Section 121 of CERCLA, with provision for waivers in a limited number of circumstances, requires that remedial actions attain a degree of cleanup that meets "applicable or relevant and appropriate Federal and State environmental requirements" (ARAR). Accordingly, (1) all State-only hazardous wastes will be addressed under CERCLA, and (2) RCRA standards for cleanup or TSD requirements (as well as other applicable or relevant and appropriate Federal and State regulations) will be met under a CERCLA action (See Section 7.5 for further discussion of cleanup requirements). This eliminates many discrepancies between the two programs and lessens the significance of whether an operable unit is placed in one program or the other.

All past-practice units within an operable unit will be designated as either RPP units, with Ecology as the lead regulatory agency, or CPP units, with either the EPA or Ecology as the lead regulatory agency (See Appendix C). This designation will ensure that only one past-practice program will be applied at each operable unit. The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations.

If an operable unit consists primarily of past-practice units (i.e., no TSD units or relatively insignificant TSD units), CERCLA authority will generally be used for those past-practice units. The CERCLA authority will also be used for past-practice units in which remediation of CERCLA-only materials comprises the majority of work to be done in that operable unit. In some cases Ecology will be the lead regulatory agency for remedial action under CPP authority.

The RPP authority will generally be used for operable units that contain significant TSD units and/or lower priority past-practice units.

Currently assigned RPP and CPP designations are shown in Appendix C. Further assignments will be made in accordance with Section 12.2 prior to initiation of any actions for those operable units.

The EPA and Ecology shall jointly determine whether an operable unit will be managed under the authority of RPP or CPP. Such designation may be changed due to the discovery of additional information concerning the operable unit. If a change in authority is proposed after the Remedial Investigation/Feasibility Study (RI/FS) or RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) work plan, as described in Section 7.0, has been submitted to the lead regulatory agency (see Section 5.6 on discussion of lead regulatory agency), the change requires the agreement of all parties.

5.5 TREATMENT, STORAGE, AND DISPOSAL UNITS AND PAST-PRACTICE UNITS INTERFACE

In some cases, TSD units are closely associated with past-practice units at the Hanford Site, either geographically or through similar processes and waste streams. Although disposition of such units must be managed in accordance with Section 6.0, a procedure to coordinate the TSD unit closure or permitting activity with the past-practice investigation and remediation activity is necessary to prevent overlap and duplication of work, thereby economically and efficiently addressing the contamination. In Appendix B, selected TSD groups/units, primarily land disposal units, have been initially assigned to operable units based on the criteria defined in Section 3.3. The information necessary for performing RCRA closures/postclosures within an operable unit will be provided in various RFI/CMS documents. The initial work plan will contain a Sampling and Analysis Plan (SAP) for the associated RCRA units and it will outline the manner in which RCRA closure/postclosure plan requirements will be met in the work plan and subsequent documents. The selected closure/postclosure method and associated design details will (unless otherwise agreed to by the parties) be submitted as part of the CMS report at a later date, as specified in the work plan. The proposed closure/postclosure activities contained in the CMS report will: (1) meet RCRA closure standards and requirements, (2) be consistent with closure requirements specified in the Hanford Site-Wide (RCRA) permit, and (3) be coordinated with the recommended remedial action(s) for the associated operable unit. Additionally, the closure/postclosure implementation schedule will reflect an overall prioritization between closure/postclosure and other remedial activities within the subject operable unit, considering environmental protection, health and safety, availability of technology, etc. Each RFI/CMS closure document will be structured such that RCRA closure requirements can be readily identified for a separate review/approval process and RCRA closure/postclosure requirements can be incorporated in the RCRA Permit. If at a later date TSD groups/units need to be deleted from or added to an operable unit, the procedures defined in Section 12.2 will be used.

Ecology, the EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed-waste groundwater contamination plumes originating from a combination of TSD and past-practice units. However, in order to ensure that TSD units within the operable units are brought into compliance with RCRA and State hazardous waste regulations, Ecology intends, subject to part four of the Agreement, that all response or corrective actions, excluding situations where there is an imminent threat to the public health or environment as described in Section 7.2.3, will be conducted in a manner which ensures compliance with the technical requirements of the HWMA (Chapter 70.105 RCW and its implementation regulations). In any case, the parties agree that CERCLA remedial actions and, as appropriate, HSWA corrective

measures will comply with ARARs.

5.6 LEAD REGULATORY AGENCY CONCEPT

The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. Either the EPA or Ecology will be the lead regulatory agency for each operable unit, TSD group/unit or milestone.

The lead regulatory agency for a specific operable unit, TSD group/unit or milestone will be responsible for overseeing the activities covered by this action plan that relate to the successful completion of that milestone or activities at that operable unit or TSD group/unit, ensuring that all applicable requirements are met. However, the EPA and Ecology retain their respective legal authorities. The lead regulatory agency shall brief and obtain any necessary approvals from the agency with regulatory authority in accordance with the EPA/Ecology MOU. Regulatory oversight activity, including preparation of responses to documents submitted by the DOE, will be performed by the lead regulatory agency for each operable unit, TSD group/unit or milestone. The non-lead regulatory agency will not assign staff to provide any oversight or support.

The assignment of the lead regulatory agency for an operable unit, TSD group/unit or milestone will be based on the following criteria.

- The EPA will generally be the lead regulatory agency when the operable unit, TSD group/unit or milestone involves:
 - Operable units that contain no TSD units or that contain low-priority TSD units
 - Operable units that contain primarily CERCLA-only materials.
- Ecology will generally be the lead regulatory agency when the operable unit, TSD group/unit or milestone involves:
 - Operable units that consist of major TSD units, with limited past-practice units
 - Operable units that contain higher priority TSD units and lower priority past-practice units.
- Ecology will be lead regulatory agency for all TSD units and TSD groups.

In some cases, the above criteria may overlap, such that either the EPA or Ecology could be assigned as the lead regulatory agency. In this situation, other criteria would be used, such as available resources to undertake additional work in a timely manner, the designation and characteristics of an adjoining operable unit, or whether the characteristics of a given operable unit are similar to the characteristics of another operable unit that has already been managed by either agency.

Currently assigned lead regulatory agency designations are shown in Appendix C for each operable unit. Additional assignments will be made in accordance with Section 12.0 prior to any action on the operable unit, TSD group/unit or milestone. The lead regulatory agency shall maintain its role through completion of all required actions.

The decision as to which regulatory agency will assume the lead role will be a joint determination by the EPA and Ecology (see Paragraph 88 of this Agreement). Such determinations are subject to change based on additional information subsequently discovered concerning an operable unit, or for any other reason, as agreed upon by the EPA and Ecology. The parties intend that once the lead regulatory agency has been assigned, the lead regulatory agency designation will not change except for an extreme circumstance.

5.7 INTEGRATION WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The purpose of the NEPA requirements is to ensure that potential environmental impacts of investigation and cleanup activity are assessed. These assessments, when determined to be required, will be made primarily as part of the CERCLA response action and RCRA corrective action processes. These processes will be supplemented, as necessary, to ensure compliance with NEPA requirements.

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6.0 TREATMENT, STORAGE, AND DISPOSAL UNIT PROCESS

6.1 INTRODUCTION

This section discusses the requirements of RCRA and the State of Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and pertains to all units that were used to store, treat, or dispose of RCRA hazardous waste and hazardous constituents after November 19, 1980; State-only hazardous waste after March 12, 1982; and units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC.

A list of these units, or grouping of units, is provided in Appendix B. Section 3.0 identifies the criteria by which these units will be scheduled for permitting and closure actions.

Some of the TSD groups/units (primarily land disposal units) have been included in operable units, as discussed in Section 3.3. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past-practice site investigation/RCRA closure/RCRA corrective action approach in order to implement applicable regulations as discussed in Section 5.5.

Some of the TSD groups/units (primarily those located within large processing facilities) will be integrated with the disposition of the facility, and therefore closed in accordance with the process defined in Section 8.0. These units are those that have physical closure actions that need to be done in conjunction with the physical disposition actions in the facility (e. g. removal of structural components). Even though TSD units are closed in accordance with Section 8.0, applicable requirements defined in this section still apply (e.g. 6.5 Quality Assurance).

Currently identified actions necessary to bring TSD units into compliance with Federal and State laws are identified in the work schedule (see Appendix D) including necessary interim milestones. These interim milestones are consistent with the major milestones for achieving interim status compliance requirements specified in Section 2.4. A schedule for completing interim status compliance actions is provided as part of Appendix D.

The RCRA land disposal restrictions (LDR) require that established treatment requirements be met prior to land disposal of hazardous wastes. While treatment capacity generally exists for the nonradioactive hazardous wastes which are subject to LDR, treatment is currently not available for the mixed wastes subject to LDR which require storage at the Hanford Site.

Ecology has received authorization from EPA to implement certain LDR provisions of RCRA pursuant to Section 3006 of RCRA. Accordingly, these authorized state provisions are effective in lieu of the Federal requirements. Both EPA and Ecology anticipate that Ecology will receive authorization for the additional LDR provisions in the future. EPA and Ecology intend to use the LDR provisions under M-26 and other HSWA provisions which have comparable state analogs that have not yet been authorized as an example of regulatory streamlining at the Hanford Site, by designating Ecology as the lead regulatory agency for those provisions under applicable state law. This includes review and approval of LDR annual reports, plans, and schedules for compliance with M-26-00. While EPA must retain legal authority over portions of the LDR which are not yet authorized to the state, EPA will not assign staff to oversee the routine completion of activities related to M-26-00. In the event that EPA involvement in a specific matter is requested by Ecology or is otherwise necessary, Ecology staff will brief EPA and EPA will become involved to the extent necessary to help resolve that specific matter. EPA and Ecology intend that such involvement on the part of EPA will be the exception, rather than the rule.

In accordance with Milestone M-26-00, DOE has submitted the "Hanford Land Disposal Restrictions Plan for Mixed Wastes," (LDR Plan) to Ecology, as the lead regulatory agency. This plan describes a process for managing mixed wastes subject to LDR at the Hanford Site and identifies actions which will be taken by DOE to achieve full compliance with LDR requirements.

These actions will be taken in accordance with approved schedules specified in the LDR Plan and in the Work Schedule (Appendix D). The DOE will submit annual reports which shall update the LDR Plan and the prior annual report, including plans and schedules. The annual report will also describe activities taken to achieve compliance and describe the activities to be taken in the next year toward achieving full compliance. The LDR Plan and annual reports are primary documents, subject to review and approval by Ecology. Ecology also has approval authority for schedules in the LDR Plan and annual reports. Changes to approved final schedules must be made in accordance with the Change Control System described in Section 12.0.

6.2 TREATMENT, STORAGE, AND DISPOSAL PERMITTING PROCESS

The Hanford Site has been assigned a single identification number for use in State Dangerous Waste Program/RCRA permitting activity. Accordingly, the Hanford Site is considered to be a single RCRA facility, although there are numerous unrelated units spread over large geographic areas on the Site.

Since all of the TSD groups/units cannot be permitted simultaneously, Ecology and the EPA will issue the initial permit for less than the entire facility. This permit will eventually grow into a single permit for the entire Hanford Site. The Federal authority to issue a permit at a facility in this manner is found in 40 CFR 270.1(c)(4). Any units that are not included in the initial permit will normally be incorporated through a permit modification. At the discretion of Ecology and EPA, the permit revocation and reissuance process may be used.

The process of permit modification is specified in 173-303-830 WAC and 40 CFR 270.41. A permit modification does not affect the term of the permit (a permit is generally issued for a term of 10 years). Proposed modifications are subject to public comment, except for minor modifications as provided in 173-303-830(4) WAC and 40 CFR 270.42.

The process of revocation and reissuance is specified in 173-303-830 WAC and 40 CFR 270.41. Revocation and reissuance means that the existing permit is revoked and an entirely new permit is issued, to include all units permitted as of that date. In this case, all conditions of the permit to be reissued would be open to public comment and a new term (10 years in most cases) would be specified for the reissued permit.

Figure 6-1 depicts a flowchart for processing all operating permits for TSD groups/units and for processing postclosure permits for TSD groups/units that will close with hazardous wastes or constituents left in place. The permitting process applies to existing units, expansion of units under interim status, and new units (units that do not have interim status and must have a permit prior to construction).

Ecology shall normally be responsible for drafting permit conditions, including those related to HSWA requirements. Until the HSWA provisions have been delegated from EPA to Ecology through the authorization process, EPA will maintain final approval rights for those permit conditions pursuant to HSWA authority that have not been delegated. Therefore, certain conditions of the joint permit will be enforceable by Ecology, others will be enforceable by EPA, and some conditions will be enforceable by both agencies. The permit will identify which conditions are enforceable by each agency.

Disputes concerning any HWMA requirements, will be addressed in accordance with Article VIII of the Agreement.

Ecology will have the responsibility for drafting the permit and permit modifications for all TSD groups/units, ensuring that the Part B permit application is complete, and preparing the Notices of Deficiency (NOD) to the DOE.

The Part B permit application is a primary document, as defined in Section 9.1. The review procedures, as specified in Section 9.2.2, will be followed. In the event that issues cannot be resolved through the NOD process, the appropriate dispute resolution process can be invoked.

Section 3004(u) of RCRA requires that all solid waste management units be investigated as part of the permit process. The statute provides that the timing for investigation of such units may be in accordance with a schedule of compliance specified in the permit. The parties have addressed the statutory requirement through the preliminary identification and assignment of all known past-practice units to specific operable units (see Section 3.0). These operable units have been prioritized and scheduled for investigation in accordance with the work schedule (Appendix D). It is the intent of all parties that this requirement be met through incorporation of applicable portions of this action plan into the RCRA permit. This will include reference to specific schedules for completion of investigations and corrective actions.

Ecology, the EPA, and DOE will follow all current versions of applicable Federal and State statutes, regulations, guidance documents, and written policy determinations that pertain to the

permitting process, including postclosure permits, for TSD groups/units. Public participation requirements for permitting TSD groups/units will be met and are addressed in Section 10.0.

Figure 6-1. Permitting Process Flowchart.

6.3 TREATMENT, STORAGE, AND DISPOSAL CLOSURE PROCESS

The DOE will follow applicable Federal and State statutes, regulations and guidance documents, and written policy determinations that pertain to the closure process for TSD groups/units.

The TSD units containing mixed waste will normally be closed with consideration of all hazardous substances, which includes radioactive constituents. Hazardous substances not addressed as part of the TSD closure may be addressed under past-practice authority in accordance with the process defined in Section 7.0.

The following are examples of when a unit may be closed without addressing all hazardous substances (e.g., radioactive waste).

- For treatment or storage units within a radioactive structure [e.g., the Plutonium/Uranium Extraction (PUREX) Plant] it may be possible to remove all hazardous wastes and "clean close" (see Section 6.3.1). The radioactive constituent would then remain for a future decontamination and decommissioning effort of the entire structure.
- For a land disposal unit being closed in conjunction with an operable unit, initial investigation may show that the unit no longer contains hazardous waste or constituents. Therefore, the unit may be "clean closed" with no physical closure action. Any remaining CERCLA-only materials would be addressed as part of the past-practice process as designated for that operable unit.

Figure 6-2 depicts a flowchart of the closure process for TSD units. Two types of closures are shown.

6.3.1 Clean Closure

In some cases, it may be possible to remove all hazardous wastes and constituents associated with a TSD unit and thereby achieve "clean closure." The process to complete clean closure of any unit will be carried out in accordance with all applicable requirements described in 173-303 WAC and 40 CFR 270.1. Any demonstration for clean closure of a disposal unit, or selected treatment or storage units as determined by the lead regulatory agency, must include documentation that groundwater and soils have not been adversely impacted by that TSD group/unit, as described in 173-303-645 WAC.

After completion of clean closure activities, a closed storage unit may be reused for generator accumulation (less than 90 day storage).

Figure 6-2. Closure Process Flowchart.

6.3.2 Closure as a Land Disposal Unit

If clean closure, as described above, cannot be achieved, the TSD unit will be closed as a land disposal unit. The process to close any unit as a land disposal unit will be carried out in accordance with all applicable requirements described at 173-303 WAC. In order to avoid duplication under CERCLA for mixed waste, the radionuclide component of the waste will be addressed as part of the closure action.

In the case of closure as a land disposal unit, a postclosure permit will be required. The postclosure permit will cover maintenance and inspection activities, groundwater monitoring requirements, and corrective actions, if necessary, that will occur during the postclosure period. The postclosure period will be specified as 30 years from the date of closure certification of each unit, but can be shortened or lengthened by Ecology at any time in accordance with 173-303-610 WAC. The closure plan will be submitted in conjunction with the Part B postclosure permit application, unless the parties agree otherwise. If a unit is to be closed as a land disposal unit prior to issuance of a permit for postclosure, an interim status postclosure plan will accompany the closure plan.

6.3.3 Procedural Closure

This is used for those units which were classified as being TSD units, but were never actually used to treat, store, or dispose of hazardous waste, including mixed waste, except as provided by 173-303-200 WAC or 173-303-802 WAC. This action requires that Ecology be notified in writing that the unit never handled hazardous wastes. Such information must include a signed certification from the DOE, using wording specified in 173-303-810(13) WAC. Ecology will review the information as appropriate (usually to include an inspection of the unit) and send a written concurrence or denial to the DOE. If denied, permitting and/or closure action would then proceed, or the dispute resolution process would be invoked.

6.3.4 Expansion of Hanford Facility Waste Management Capacity Due to the Discontinuation of Process Operations

Many Hanford Site operations include systems that use chemical materials and/or solutions to perform required functions. When these systems are permanently removed from service, the chemical materials and/or solutions that no longer have a use may be considered a waste subject to the provisions of the dangerous waste regulations. For those systems that contain chemical materials and/or solutions that are considered waste, the components of the systems that contain this waste become subject to the Resource Conservation and Recovery Act (RCRA) permitting requirements of the Washington Administrative Code (WAC) 173-303 if the waste is managed for greater than 90 days. For facilities that have received a shut-down notice (facilities being transitioned), these system components (e.g., tanks and ancillary equipment) may be added to the Hanford Facility RCRA Dangerous Waste Part A Permit without providing notification required by WAC 173-303-281, provided that these components have no further waste management mission prior to RCRA closure or deactivation as addressed in Section 8.0.

6.4 RESPONSE TO IMMINENT AND SUBSTANTIAL ENDANGERMENT CASES

The State of Washington Dangerous Waste Regulations, 173-303-960 WAC, addresses actions to abate an imminent and substantial endangerment to the health or the environment from the releases of dangerous or solid wastes. Ecology will require DOE to either take specific action to abate an identified danger or threat, or will require a specific submittal date for DOE to propose an abatement

method.

See Section 7.2.3 for information concerning responses to imminent and substantial endangerment cases at past-practice sites.

6.5 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RCRA closure plans, the RCRA permit, and any other relevant plans that may be used to describe sampling and analyses at RCRA TSD units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making. This range of QA/QC options is included in the "Data Quality Strategy for Hanford Site Characterization" (as listed in Appendix F). This document is subject to approval by EPA and Ecology.

Based upon the data quality objectives, the DOE shall comply with EPA guidance documents for QA/QC and sampling and analysis activities which are taken to implement the Agreement. Such guidance includes:

- "Guidelines and Specifications for Preparing Quality Assurance Program Plans" (QAMS-004/80);
- "Interim Guidance and Specifications for Preparing Quality Assurance Project Plans" (QAMS-005/80);
- "Data Quality Objectives for Remedial Response Activities" (EPA/540/G-87/003 and 004); and
- "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA/SW-846).

In some instances, RCRA TSD units are included in operable units and are scheduled for investigation and closure as part of the operable unit remedial action. DOE shall follow the provisions of Section 7.8 for QA/QC for sampling and analysis activities at these land disposal units.

In regard to QA requirements for construction of RCRA land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

For analytical chemistry and radiological laboratories, the QA/QC plans must include the elements listed in "Guidance on Preparation of Laboratory Quality Assurance Plans" (as listed in Appendix F). DOE shall submit laboratory QA/QC plans to the lead regulatory agency for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other

data, the lead regulatory agency may request DOE to provide QA/QC documentation. Any such data that does not meet the QA/QC standard required by this section shall be clearly flagged and noted to indicate this fact.

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Hanford Federal Facility Agreement and Consent Order

APPENDIX 2 ACTION PLAN

7.0 PAST PRACTICES PROCESSES

7.1 INTRODUCTION

This section has the following five purposes.

- Describe the processes that are common to both CPP units and RPP units (Section 7.2).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the CERCLA process (Section 7.3).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the RPP unit process (Section 7.4).
- Describe the process for setting cleanup standards for any CPP or RPP remedial action (Section 7.5).
- Describe the role of other Federal agencies in the investigation and remedial action processes (Sections 7.6 and 7.7).

Approximately 1,200 waste management units have been identified within the boundaries of the 560-square mile Hanford Site. This includes approximately 1,000 past-practice units. Most past-practice units are located in two general geographic areas as identified by the DOE (the 100 and 200 Areas). Other past-practice units are located in the 300, 1100 and other areas of the Hanford Site.

The 100, 200, 300, and 1100 Areas were identified as aggregate areas for inclusion of the Hanford Site on the CERCLA NPL. Figure 7-1 reflects these geographic areas at the Hanford Site. Each of these areas has a unique environmental setting and waste disposal history. The four aggregate areas were proposed for inclusion on the NPL on June 24, 1988, and were placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989). The remaining past-practice units from other areas have been assigned to operable units within one of the four aggregate areas for the purpose of investigation and subsequent action. Any future units that may be identified will also be assigned to

operable units within an aggregate area.

Cleanup of past-practice units will be conducted pursuant to either the CERCLA process (Section 7.3) or RCRA process (Section 7.4). Figure 7-2 highlights the major steps involved in both the CPP and RPP programs and indicates how each of these steps is related to a comparable step in the other program. It shows that the steps of CERCLA are functionally equivalent to steps in the RPP program. Accordingly, the investigative process at any operable unit can proceed under either the CPP or the RPP program.

In accordance with Section 3.1, and discussed in Section 8.3, the parties may elect to include the disposition of facilities under the past-practices processes. Such actions can proceed under either the CPP or the RPP Program.

Figure 7-1. Aggregate Areas. (*Currently not available electronically*)

Figure 7-2. Comparison of Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes.

7.2 PRELIMINARY PROCESSES

Section 5.4 describes the rationale for managing operable units under either the CPP or the RPP category. The following processes apply to all past-practice units, regardless of whether they are classified as RPP or CPP units.

7.2.1 Site-wide Scoping Activity

An ongoing scoping activity will be conducted on a site-wide basis to maintain a current listing of operable unit boundaries and priorities. The vehicle for documentation of this activity will be the Waste Information Data System (WIDS). The WIDS, as described in Section 3.5, and Appendix C of this Action Plan will be updated as additional information becomes available.

Although initial operable unit boundaries have been identified (Appendix C), the site-wide scoping activity may reveal additional or new information that could impact the designation of individual units within operable units or the priority in which operable units will be managed. Any such changes will require the written concurrence of the assigned executive managers for the DOE and the affected lead regulatory agency. If both EPA and Ecology are affected by this action, the written concurrence of both agencies will be required in accordance with the modification procedures described in Section 12.2.

The site-wide scoping activities will not impact the schedule of any other activities that are shown on the work schedule (Appendix D).

7.2.2 Operable Unit Scoping Activity

The operable unit scoping activity will be used to support the initial planning phase for each RI/FS (or RFI/CMS). Such activity and planning will result in an overall management strategy for each operable unit. In some cases, the operable unit management strategy may include facility dispositioning activities which will be integrated with this process as discussed under Section 8.3,

"Decommissioning Process Planning." The DOE shall assemble and evaluate existing data and information about the individual waste management units within each operable unit. The data and information obtained during each operable unit scoping activity will be used to support the logic for the RI/FS (or RFI/CMS) work plan and, therefore, will be submitted as part of each work plan.

This scoping activity is not intended to be a mechanism for generation of new information except for site survey and screening activities described in Section 7.3.2, but a thorough and complete evaluation of existing data. The schedule for submittal of the work plans, as specified in the work schedule (Appendix D), allows time for inclusion of the scoping activity.

The following is a list of specific scoping activities that will be addressed in each RI/FS (RFI/CMS) work plan:

- Assessment of whether interim response actions (IRA) or interim measures (IM) may be necessary. Such assessments will be documented as part of the work plan and may result in IRA or IM proposals
- Assessment of available data and identification of additional data needs
- Identification of potential ARARs (see Section 7.5)
- Identification of potential remedial responses.

7.2.3 Response to Imminent and Substantial Endangerment Cases

In the event that a situation is determined by the lead regulatory agency to represent an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance or hazardous waste or solid waste at an operable unit, the lead regulatory agency may require the DOE to immediately initiate activities to abate the danger or threat. CERCLA, RCRA and the HWMA all include provisions to quickly respond to such situations. If the operable unit is being managed under the CPP procedures, abatement in accordance with Section 106 of CERCLA and the applicable sections of the National Contingency Plan (NCP) (40 CFR Part 300) is preferred. If the operable unit is being managed under the RPP procedures, abatement under the provisions of the HWMA will be preferred. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the imminent and substantial endangerment and will assign a lead regulatory agency to oversee DOE's efforts in completing the project.

The DOE may voluntarily submit a proposed method for abatement to the lead regulatory agency at any time. In cases involving a proposed method for abatement, the lead regulatory agency must approve the DOE's proposal prior to initiation of field work. The final selection of remedy for an abatement action shall be consistent, to the extent practicable, with the final selection of remedial action (for CPP units) or corrective measures (for RPP units) anticipated for the unit(s).

To expedite the cleanup process, neither the specified abatement method nor the proposal for abatement will be subject to the public comment process, except as required by law. However, the public will be kept informed of the status of the abatement process through other means as described in Section 10.0. After completion of all required abatement activity, the routine RI/FS or RFI/CMS process will be implemented, or continued, in accordance with the work schedule (Appendix D). The

procedures specified in Section 7.3 or 7.4, respectively, will be followed.

7.2.4 Interim Response Action and Interim Measure Processes

If data or information acquired at any time indicate that an expedited response is needed or appropriate because of an actual or threatened release from a past-practice unit, the lead regulatory agency may require the DOE to submit a proposal for an expedited response at that unit. In addition, the DOE may submit such a proposal at any time, without request from the lead regulatory agency.

Both CERCLA and RCRA include provisions for expedited responses. These expedited responses will be reserved for situations in which an expedited response is determined to be warranted by the lead regulatory agency, which for purposes of this section includes both interim response action and interim measures. An IRA refers to the CERCLA process and an IM refers to the RCRA process. The IRA or IM process will be used in cases where early remediation will prevent the potential for an imminent and substantial endangerment or an imminent hazard to develop. It may also be used in cases where a single unit within an operable unit is a high priority for action, but the overall priority for the operable unit is low. In this way, a specific unit or release at an operable unit can be addressed on an expedited schedule, when warranted.

In addition to the CERCLA and RCRA authorities, Section 2 of Executive Order 12580, dated January 29, 1987, allows the DOE to implement removal actions in circumstances other than emergencies. To the extent that a removal action taken by the DOE under Executive Order 12580 could be inconsistent with the CERCLA or RCRA processes, or if such action could alter the schedules as set forth in Appendix D, the concurrence of DOE and the lead regulatory agency shall be required prior to initiation of field work in accordance with the modification procedures described in Section 12.0.

If the operable unit is being managed under the CPP procedures, an IRA proposal shall be submitted by the DOE to the lead regulatory agency, and the IRA shall be conducted in accordance with 40 CFR Part 300 Subpart E. If the operable unit is being managed under the RPP procedures, the IM proposal shall be submitted to the lead regulatory agency, and the IM shall be conducted in accordance with applicable regulations. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the expedited response.

Any proposal for an IRA or an IM must be approved by the lead regulatory agency prior to initiation of field work. The selection of remedy for an IRA or an IM shall be consistent, to the extent practicable, with anticipated alternatives for final selection of remedial action (for CPP units) or corrective measures (for RPP units).

Public comment on the IRA proposal, as well as other public participation opportunities, will be provided as described in Section 10.0.

7.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT PAST-PRACTICE UNIT PROCESS

The purpose of this subsection is to provide an overview of the CPP unit process to be used at the Hanford Site to initiate effective, timely, and environmentally sound cleanup of operable units handled under CERCLA. This includes a description of the RI/FS process, followed by a short

discussion of the remedial design (RD), remedial action (RA), and operation and maintenance (O&M) phases.

7.3.1 Preliminary Assessment/Site Inspection

The Preliminary Assessment/Site Inspection (PA/SI) is used as an initial screening step to determine whether a site should be nominated for the CERCLA NPL. For the Hanford Site, the information necessary to make that determination was provided to the EPA in 1987 by the DOE. The EPA determined that this information was functionally equivalent to a PA/SI. Based on that information, the Hanford Site was ranked and then nominated for inclusion on the NPL on June 24, 1988 (Federal Register Vol. 53, No. 122, p. 23988). The four aggregate areas of the Hanford Site were officially placed on the NPL effective November 3, 1989 (Federal Register Vol. 54, No. 191, p. 41015). Therefore, there is no need to continue a PA/SI activity for the Hanford Site. Efforts will proceed directly to the scoping activities previously discussed and the RI/FS process. Figure 7-3 shows the normal sequence of events that occur during the RI/FS process.

7.3.2 Remedial Investigation/Feasibility Study Work Plan for Each Operable Unit

The RI/FS work plan is a primary document, as described in Section 9.0. The lead regulatory agency will provide comments on each RI/FS work plan that is submitted by the DOE. The lead regulatory agency will require the DOE to make appropriate changes to the RI/FS work plan and will approve the work plan. At that time, the work schedule (Appendix D) may need to be modified to accurately reflect the RI/FS work plan schedule. Such modification will be made in accordance with the procedures described in Section 12.0. At that time, the lead regulatory agency will publish the RI/FS schedule, in accordance with CERCLA Section 120(e)(1) and as specified in Article XVII of the Agreement. As additional information becomes available during the RI/FS process, the RI/FS work plan may be revised.

The RI/FS work plan will include or reference seven interrelated components as they pertain specifically to RI/FS activities at any given operable unit. These components, prepared in accordance with current EPA guidance documents, include the following:

- Technology
- Quality assurance/quality control
- Project management
- Sampling and analysis
- Data management
- Health and safety
- Community relations.

Figure 7-3. Overview of the Remedial Investigation/Feasibility Study Process.

Every effort will be made to standardize these across RI/FS work plans to minimize the time

and resources required for preparation and review. The community relations component will be prepared and issued as a separate formal plan as described in Section 10.0 and will then be referenced in each RI/FS work plan.

The following site survey and screening activities may precede submittal of the RI/FS work plan, and are a continuation of the operable unit scoping activity described in Section 7.2.2:

- Survey location of sites
- Surface radiation
- Surface geophysical surveys
- Air sampling
- Soil gas surveys
- Biotic surveillance.

This will allow for a quicker start of characterization activities upon approval of the RI/FS work plan. The results of the site survey and screening activities will be factored into the work plan, as appropriate, during the review and approval process. In addition, to further expedite the process, near-surface vadose zone sampling activities may commence after 2 weeks following the receipt of comments from the lead regulatory agency on the initial draft of the RI/FS work plan if comments from the lead regulatory agency regarding vadose zone sampling have been resolved. Figure 7-4 depicts the normal review and approval cycle for primary documents (see Section 9.0) as applied to the RI/FS work plans. Figure 7-4 also applies to RFI/CMS work plans, which are discussed in Section 7.4.2.

7.3.3 Remedial Investigation--Phase I

The first phase of the remedial investigation (RI) will focus on defining the nature and extent of contamination through field sampling and laboratory analysis. This will include characterization of waste types, migration routes, volume, and concentration ranges. This information will be used to further develop cleanup requirements.

The DOE will initiate those activities necessary to characterize and assess risks, routes of exposure, fate and transport of contaminants, and potential receptors. It is anticipated that because of the limited data available during this phase to adequately assess risks, including environmental pathways and expected exposure levels, this analysis will be further developed during the feasibility studies (FS).

Figure 7-4. Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval.

In some cases, treatability investigations at an operable unit will involve minimal activity. In other cases, treatability investigations at a previously investigated operable unit may be used at other operable units whenever warranted by site-specific conditions. When these situations exist, it is possible to expedite the RI/FS process by combining the RI Phase I activity with the RI Phase II

activity. Any decision to combine the RI Phases I and II must be agreed to in writing by the lead regulatory agency, in accordance with the procedures described in Section 12.0, unless it was agreed to during the initial approval of the RI/FS work plan.

The actual schedule for conducting the RI Phase I will be specified for each operable unit in the work schedule (Appendix D). The RI Phase I report is a secondary document, as described in Section 9.0. In cases where the RI Phases I and II have been combined, a RI Phases I and II report shall be prepared by the DOE and submitted to the lead regulatory agency as a primary document, as described in Section 9.0.

7.3.4 Feasibility Study--Phase I

The FS Phase I will be conducted by the DOE for the purpose of developing an array of alternatives to be considered for each operable unit. The DOE will develop the alternatives for remediation by assembling combinations of technologies, and the media to which the technologies could be applied, into alternatives. The alternatives will address all contamination at each operable unit.

The FS Phase I process will begin during the RI Phase I process when sufficient data are available. Such data will consist of analytical data obtained during the RI, as well as historical information regarding waste management units at the operable unit.

Because of the direct relationship between FS Phase I (development of alternatives) and FS Phase II (screening of alternatives--Section 7.3.5), the two phases will be conducted concurrently. This approach should save several months in the RI/FS process, without sacrificing quality of work. Since Phases I and II of the FS will be finished at the same time, the information from both phases will be submitted to the lead regulatory agency in a single FS Phases I and II report.

7.3.5 Feasibility Study--Phase II

The FS Phase II will be a screening step to reduce the number of treatment alternatives for further analysis while reserving a range of options. Screening will be accomplished by considering the alternatives based on effectiveness, implementability, and cost factors. Cost may be used as a factor when comparing alternatives that achieve acceptable standards of performance.

Innovative technologies will be carried through the screening process if they offer the potential for better treatment performance or implementability, fewer or less adverse impacts than other available technologies, or lower costs than demonstrated technologies with comparable environmental results.

As stated in Section 7.3.4, Phases I and II of the FS will be conducted concurrently. Therefore, the FS Phase II will begin as soon as sufficient data from the RI Phase I is obtained. The actual schedule for conducting the FS Phases I and II will be specified for each operable unit in the work schedule (Appendix D). The FS Phases I and II report, is a primary document as described in Section 9.0.

7.3.6 Remedial Investigation--Phase II

This second phase of the RI will focus on collecting data sufficient to substantiate a decision

for remedy selection. A supplemental work plan to the RI/FS work plan will be prepared to cover the RI Phase II activities. This work plan will be placed in the Public Information Repositories. After a literature search is conducted to consider the applicability of various remediation alternatives, treatability investigations may be performed for particular technologies. Additional field data will be collected as needed to further assess alternatives. Treatability investigation work plans will be submitted by DOE to the lead regulatory agency when the investigation is related to a specific operable unit per the RI/FS work plan. All treatability investigation work plans shall be assigned to an operable unit for which a lead regulatory agency has been identified. The lead regulatory agency shall determine on a case-by-case basis whether a treatability investigation work plan is a primary document or a secondary document (see Section 9.1) during development of the applicable RI/FS (or RFI/CMS) work plan.

Upon completion of the treatability investigation, DOE shall submit a treatability investigation report to the lead regulatory agency, documenting the findings of the investigation and applicability to the remedial action project. The treatability investigation report is a secondary document (see Section 9.1).

The actual schedule for conducting the RI Phase II will be specified for each operable unit in the work schedule (Appendix D). The RI Phase II report is a primary document as described in Section 9.0. Where the RI Phase I and Phase II activities have been combined (see Section 7.3.3), the resulting RI Phases I and II report would also be a primary document.

7.3.7 Feasibility Study--Phase III and Proposed Plan

The treatment alternatives passing through the initial screening phases will be analyzed in further detail against a range of factors and compared to one another during the FS Phase III. This final screening process will begin once the FS Phases I and II report is approved by the lead regulatory agency.

The determination for the preferred alternative will be made based on the following general criteria:

- Does the alternative protect human health and the environment and attain ARARs
- Does the alternative significantly and permanently reduce the toxicity, mobility, and volume of hazardous constituents
- Is the alternative technically feasible and reliable.

In addition, the costs of construction and the long-term costs of operation and maintenance will be considered.

The actual schedule for conducting the FS Phase III will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning per paragraph 8.3. A FS Phase III report will be prepared by the DOE documenting the results of the RI/FS. The FS Phase III report is a primary document as described in Section 9.0.

With consideration of all information generated through the RI/FS process, the DOE shall prepare a proposed plan. This proposed plan is required by CERCLA Section 117(a). The proposed

plan must describe an analysis of the feasible alternatives and clearly state why the proposed remedy is the most appropriate for the operable unit, based on written EPA guidance and criteria. Once the lead regulatory agency has concurred on the proposed plan, and the FS Phase III report, the documents will be made available for public review and comment in accordance with the procedures described in Section 10.0. Public review of the proposed plan will provide opportunity for consideration of two additional criteria in preparation of the record of decision. These criteria are State and community preference or concerns about the proposed alternatives.

7.3.8 Record of Decision

After the public comment period on the FS Phase III report and the proposed plan has closed, the record of decision (ROD) process will begin. The ROD will be prepared by the lead regulatory agency and will describe the decision making process for remedy selection, and summarize the alternatives developed, screened, and evaluated in accordance with CERCLA and the NCP. The lead regulatory agency is responsible for reviewing the comments received and will prepare a responsiveness summary that will accompany the ROD. Although all of the RI/FS and preliminary determinations through the process of drafting the ROD will be the responsibility of the lead regulatory agency for a given operable unit, the ROD must be signed by the EPA. The ROD will become part of the administrative record for each operable unit. The lead regulatory agency shall continue its role after issuance of the ROD, including oversight of the remedial design and remedial action phases, as described below.

7.3.9 Remedial Design Phase

Following issuance of the ROD, the remedial design (RD) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0. Since any necessary treatability investigations have been performed during the RI Phase II, no additional investigations will be necessary, unless required by the lead regulatory agency. A number of items will be completed during the RD phase, including but not limited to the following:

- Completion of design drawings
- Specification of materials of construction
- Specification of construction procedures
- Specification of all constraints and requirements (e.g., legal)
- Development of construction budget estimate
- Preparation of all necessary and supporting documents.

An RD report will be prepared that includes the designs and schedules for construction of any remediation facility and development of support facilities (lab services, etc.). The RD report is a primary document as described in Section 9.0. The schedule for conducting the RD phase will be specified for each operable unit in the work schedule (Appendix D).

7.3.10 Remedial Action Phase

The remedial action (RA) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0. The RA phase is the implementation of the detailed actions developed under the RD. The RA will include construction of any support facility, as specified in the RD report, as well as operation of the facility to effect the selected RA at that operable unit.

An RA work plan will be developed for each operable unit detailing the plans for RA. The RA work plan is a primary document as described in Section 9.0. The schedule for conducting the RA phase will be specified for each operable unit in the work schedule (Appendix D).

Upon satisfactory completion of the RA phase for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the RA phase for an operable unit.

7.3.11 Operation and Maintenance

The operation and maintenance (O&M) phase will be initiated at each operable unit when the RA phase has been completed. This phase will include inspections and monitoring as described in the O&M plan. In all cases where waste or contamination is left in place as part of the RA, the O&M phase is expected to be a long-term activity. Where waste or contamination is left in place, the operable unit will be evaluated by the lead regulatory agency at least every 5 years during the O&M phase to determine whether continued O&M activity is indicated or further RA is required. The lead regulatory agency may conduct more frequent evaluations should data indicate this is necessary to ensure effective implementation of the RA. All O&M data and records obtained to that date, along with any additional information provided by the DOE, will be used in that evaluation.

In cases where all waste or contamination is removed or destroyed, a short period for the O&M phase for specific units within an operable unit may be specified by the lead regulatory agency. The lead regulatory agency may, where appropriate, allow for the O&M phase to be terminated for certain units within an operable unit while requiring O&M to be continued at other units. In these cases, certain units may be considered for delisting in accordance with the NCP, after the O&M phase has been completed.

The O&M plan is a primary document as described in Section 9.0. The schedule for conducting significant steps described in the O&M plan are specified for each operable unit in the work schedule (Appendix D).

7.4 RESOURCE CONSERVATION AND RECOVERY ACT PAST-PRACTICE UNIT PROCESS

The RPP processes are the subject of this Section and are governed by the authorized state corrective action program.

7.4.1 Resource Conservation and Recovery Act Facility Assessment

For those units that are defined as RPP units, (see definition in Section 7.1), the lead regulatory agency for an operable unit may require the DOE to conduct a RCRA facility assessment (RFA) of all

or some of the RPP units within that operable unit. The need for an RFA is based on whether sufficient knowledge exists to determine if an RFI is required. Based on the results of the RFA, the lead regulatory agency may require additional information from the DOE, or it may determine that no further investigation or corrective action is required for any of the RPP units within the operable unit. The project manager for the lead regulatory agency for that operable unit may direct the DOE to conduct a RFI based on results of the RFA.

The RFA will be developed in accordance with current applicable regulations, guidance documents, and written policy available at the time the RFA is begun. An RFA report will be prepared documenting the results of the RFA. The RFA report is a primary document as described in Section 9.0. If the lead regulatory agency determines that further investigation is necessary, the project manager for the lead regulatory agency will direct the DOE to prepare an RFI report, as described below.

In some cases, sufficient information may already exist that indicates that further investigation will be required. In these cases the RFA process will be bypassed and effort will be focused on the RFI/CMS. Figure 7-5 shows the normal sequence of events that occur during the RFI/CMS process.

7.4.2 Resource Conservation and Recovery Act Facility Investigation

Each RCRA Facility Investigation (RFI) will address all units within a specific operable unit, as identified in the RFI/CMS work plan. Certain operable units also contain TSD units, primarily land disposal units, that are to be investigated and managed in conjunction with past-practice units. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents as discussed in Section 5.5. The RFI/CMS work plan will be functionally equivalent to an RI/FS work plan (see Section 7.3.2). Timing for submittal of the work plan will be in accordance with the work schedule (Appendix D).

An RFI report will be prepared by the DOE, and it will document the results of the RFI. The RFI report is a primary document as described in Section 9.0. The schedule for conducting the RFI will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning in accordance with Section 8.3. The parties agree that the information obtained through the RFI must be functionally equivalent to information gathered in the CERCLA process through the RI Phases I and II, as described in Sections 7.3.3 and 7.3.6.

Figure 7-5. Overview of the RCRA Facility Investigation/Corrective Measures Study Process.

Based on the results of the RFI, the lead regulatory agency may determine that no further investigation or corrective action is required for each RPP unit in an operable unit. The project manager from the lead regulatory agency for that operable unit may direct the DOE to conduct a CMS based on results of the RFI.

7.4.3 Corrective Measures Study

A Corrective Measures Study (CMS) shall be prepared by the DOE and will include an identification and development of the corrective measure alternative(s), an evaluation of these alternatives, and a justification for the recommended alternative. The CMS will include development of a cost estimate for each alternative considered.

A CMS report documenting the results of the study will be prepared by the DOE. The CMS report is a primary document as described in Section 9.0. The schedule for conducting the CMS will be specified for each operable unit in the work schedule (Appendix D). The CMS report will become the basis for revision of the RCRA permit through the modification or revocation and reissuance processes described in Section 6.2. The parties agree that the information obtained through the CMS must be functionally equivalent to information gathered in the CERCLA process through the FS Phases I, II, and III as described in Sections 7.3.4, 7.3.5, and 7.3.7.

The lead regulatory agency for the operable unit shall continue its oversight role through the corrective measures implementation (CMI) phase and through any long-term monitoring or maintenance phase that is specified in the CMI work plan.

7.4.4 Corrective Measures Implementation

The DOE will initiate, maintain progress toward completion of, and complete any necessary corrective action for all RPP units within each operable unit in accordance with the CMI work plan. This will be done in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process. It is agreed by the parties that the content of the CMI work plan will be considered to be functionally equivalent to that of the RA work plan described in Section 7.3.10.

The CMI work plan and the corrective measures design (CMD) report, which are produced as part of the CMI phase, are primary documents as described in Section 9.0. The schedule for developing the CMI work plan and conducting the CMI will be specified for each operable unit in the work schedule (Appendix D). The CMI phase will be conducted in accordance with the schedule of compliance specified in the RCRA permit and the work schedule (Appendix D).

Upon satisfactory completion of the CMI phase as described in the CMI work plan for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the CMI phase for an operable unit.

7.4.5 Offsite Releases and Corrective Action

In the event that hazardous constituents or contamination from a landfill unit, surface impoundment, or waste pile is found to have migrated beyond the boundaries of the Hanford Site, the lead regulatory agency may require that corrective action for such contamination be conducted. Corrective action authority will be implemented through a schedule of compliance. The DOE shall make every reasonable effort to gain access to investigate and remediate offsite contamination. The DOE will document attempts to attain offsite access for investigative work and corrective action in such cases, in accordance with the access provisions as specified in Article XXXVII of the Agreement. Where necessary to accomplish offsite RA, such releases may be addressed by the lead regulatory agency under CERCLA authority.

The DOE will initiate, maintain progress toward completion of, and complete any offsite corrective action required by the lead regulatory agency, in accordance with the time frames specified in the work schedule (Appendix D) and in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process.

7.5 CLEANUP REQUIREMENTS

In accordance with Section 121(d) of CERCLA, the DOE will comply with all ARARs when hazardous substances, pollutants, or contaminants are to remain onsite as part of RAs. These requirements include cleanup standards, standards of control, and other substantive environmental protection requirements and criteria for hazardous substances as specified under Federal or State laws and regulations. The parties intend that ARARs, as appropriate, will apply at units being managed under the RPP program at the Hanford Site to ensure continuity between the RCRA and CERCLA authorities.

"Applicable requirements" are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law. These requirements specifically address a hazardous substance, pollutant, contaminant, hazardous waste, hazardous constituent, RA, location, or other circumstance at the Hanford Site.

"Relevant and appropriate requirements" are those which do not meet the definition of applicable requirements, yet pertain to problems or situations similar to those encountered in the cleanup effort at the Hanford Site. Such requirements must be suited to the unit under consideration and must be both relevant and appropriate to the situation.

The ARARs are classified into three general categories as follows:

- Ambient or chemical-specific requirements. These are established numeric criteria for various constituents. These criteria are usually set from risk-based or health-based values or methodologies
- Performance, design, or other action-specific requirements. These are usually technology or activity-based requirements or limitations on actions taken with respect to a given hazardous substance or hazardous constituent
- Location-specific requirements. These are restrictions placed on the concentration of hazardous substances or hazardous constituents or on the conduct of activities solely because they occur in special locations.

In addition to ARARs, certain non-promulgated Federal or State criteria, advisories, guidance, and proposed standards may be used to establish cleanup standards. These "to-be-considered" criteria can be imposed if necessary to assure protection of human health and the environment but are not necessarily legally binding. These criteria will be specified by the lead regulatory agency in cases where an ARAR does not exist, or in cases where the lead regulatory agency does not believe the ARAR is protective of human health and the environment given the site specific conditions.

For units which are selected for abatement actions or interim actions, as described in Sections 7.2.3 and 7.2.4, ARARs will be applied, where appropriate, recognizing that these units will later be subject to ARARs during the final remedial or corrective action process.

Compliance with an ARAR may be waived in certain circumstances, as specified in current EPA guidance on cleanup requirements. Waivers will be limited to the following situations:

- Cases in which the remedy selected is only part of a total remedial action that will satisfy the ARAR when completed.
- Cases in which compliance with an ARAR will result in a greater risk to human health and the environment than an alternative option.
- Cases in which compliance with an ARAR is technically impracticable from an engineering perspective.
- Cases in which alternative treatment methods to those specified as ARARs have been shown to result in equivalent standards of performance.
- With respect to a State standard, requirement, criteria, or limitation, the State has not consistently applied procedures to establish a standard, requirement or criteria or demonstrated the intention to consistently apply the standard, requirement, criteria, or limitation in similar circumstances at other RAs.

Federal statutes, regulations, and "to-be-considered" criteria from which cleanup requirements will be developed are included in the current EPA guidance document, "CERCLA Compliance with Other Laws Manual." The following list identifies the key state statutes and regulations from which cleanup requirements will be developed for the Hanford Site. This list is not intended to be inclusive; other standards may be applicable on a case-by-case basis. In addition, this list can be expanded as new State statutes and regulations become effective:

- Washington State Environmental Policy Act--Chapter 43.21C RCW, and implementing regulations;

Guidelines Interpreting and Implementing the State Environmental Policy Act--
197-11 WAC

- Water Well Construction Act--Chapter 18.104 RCW, and implementing regulations;

Minimum Standards for Construction and Maintenance of Water Wells--173-160
WAC

- Washington Clean Air Act--Chapter 70.94 RCW

- Solid Waste Management, Recovery and Recycling Act--Chapter 70.95 RCW, and implementing regulations;

Minimum Functional Standards for Solid Waste Handling--173-304 WAC

- Nuclear Energy and Radiation Act--Chapter 70.98 RCW, and implementing regulations;

Standards for Protection Against Radiation-- 402-24 WAC

Licensing Requirements for Land Disposal of Radioactive Waste--402-61 WAC

Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides--402-80 WAC

- Hazardous Waste Management--Chapter 70.105 RCW, and implementing regulations;

Dangerous Waste Regulations--173-303 WAC

- Model Toxics Control Act--Chapter 70.105D RCW, and implementing regulations;

Model Toxics Control Act Cleanup Regulation--173-340 WAC

- Washington State Water Code--Chapter 90.03 RCW

- Regulation of Public Groundwaters--Chapter 90.44 RCW

- Water Pollution Control Act--Chapter 90.48 RCW, and implementing regulations;

Water Quality Standards for Water of the State of Washington--173-201 WAC

State Waste Discharge Program--173-216 WAC

Underground Injection Control Program--173-218 WAC

National Pollution Discharge Elimination System Permit Program--173-220 WAC

- Water Resources Act of 1971--Chapter 90.54 RCW
- Shoreline Management Act--Chapter 90.58 RCW and implementing regulations, 173-14 through 173-22 WAC

The DOE shall use the Federal and State sources of information, as mentioned above, in developing proposed ARARs during the RI/FS (or RFI/CMS) process. The detailed documentation of ARARs shall be provided in an appendix to the FS Phase III Report (or CMS report).

The lead regulatory agency for each CERCLA operable unit shall prepare a summary of the rationale for selection of ARARs for the ROD. The lead regulatory agency of each RPP operable unit shall prepare a summary of the rationale for selection of the ARARs for the fact sheet that will accompany the CMS report (including permit modification or permit revocation and reissuance, as applicable).

In the event that new standards are developed subsequent to initiation of RA at any operable unit, and these standards result in revised ARARs or "to-be-considered" criteria, these new standards will be considered by the lead regulatory agency as part of the review conducted at least every five years under Section 121(c) of CERCLA.

7.6 NATURAL RESOURCE TRUSTEESHIPS

Section 107 of CERCLA imposes liability for damages for injury to, destruction of, or loss of

natural resources. It also provides for the designation of Federal and State trustees, who shall be responsible for, among other things, the assessment of damages for injury to, destruction of, or loss of natural resources. Current regulations concerning such trustees are in the NCP, 40 CFR Part 300, Subpart G.

The DOE shall notify appropriate Federal and State natural resource trustees as required by section 104(b)(2) of CERCLA and Section 2(e)(2) of Executive Order 12580.

In addition to DOE, the relevant Federal trustees for the Hanford Site are the U.S. Department of Commerce and the U.S. Department of the Interior (DOI). Their respective roles are described below.

7.6.1 National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) acts on behalf of the Secretary of Commerce as a Federal trustee for living and nonliving natural resources in coastal and marine areas. Resources of concern to the NOAA include all life stages, wherever they occur, of fishery resources of the exclusive economic zone and continental shelf and anadromous species throughout their ranges. For resources in coastal waters and anadromous fish streams, the NOAA may be a co-trustee with the DOI, other Federal land management agencies, and the affected States, and Indian Tribes. Chinook, coho, and sockeye salmon, as well as steelhead trout, are the anadromous species that utilize the Hanford Reach for spawning, rearing, foraging, and as a migratory corridor.

Under an existing interagency agreement with the EPA, the NOAA will provide a Preliminary Natural Resource Survey (PNRS) to the EPA by December 31, 1988, detailing trust species of concern at the four aggregate areas at the Hanford Site (the 100, 200, 300, and 1100 Areas). The NOAA will also provide technical review, at the operable unit level, of RI/FS work plans, RI reports, FS reports, RD reports, and RA work plans, as appropriate. These technical reviews will be done to ensure that potential impacts to anadromous fish in the Hanford Reach are addressed in the CERCLA process. The NOAA will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The DOE will provide the NOAA with a copy of documents listed above at the time of submission to the EPA. The NOAA will provide technical comments to the EPA for incorporation and transmittal to the DOE. Timing for submittal of comments by the NOAA will be consistent with the time frames specified for primary document review in Section 9.2. The PNRS provided by the NOAA and each set of technical comments will become part of the administrative record.

7.6.2 Department of the Interior (DOI)

The DOI responsibilities as a natural resource trustee will be shared by three separate bureaus within the DOI. These bureaus are the U.S. Geological Survey, U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs. Each bureau will prepare a report for DOI based on its respective responsibility as a natural resource trustee. The DOI will consolidate these reports and issue a PNRS. The DOI will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The PNRS conducted by DOI will become part of the administrative record.

The PNRS will be completed under an existing interagency agreement between the DOI and the EPA. If further work beyond the PNRS is undertaken by the DOI, such work will be funded through DOI sources.

7.7 HEALTH ASSESSMENTS

The Agency for Toxic Substances and Disease Registry (ATSDR) is a part of the U.S. Public Health Service, which is under the U.S. Department of Health and Human Services. The ATSDR was created by Congress to help implement the health-related sections of laws that protect the public from hazardous waste and environmental spills of hazardous substances. The CERCLA requires ATSDR to conduct a health assessment within one year following proposal to the NPL for any site proposed after October 17, 1986.

The ATSDR health assessment is the result of the evaluation of data and information on the release of hazardous substances into the environment. Its purpose is to assess any current or future impacts on public health, to develop health advisories or other health recommendations, and to identify studies or actions needed to evaluate and mitigate or prevent adverse human health effects.

The ATSDR will prepare a preliminary health assessment for each of the four Hanford NPL areas (the 100, 200, 300, and 1100 Areas). Since the RI Phase I reports for these areas will not be available within one year following the proposal of Hanford to the NPL, these preliminary health assessments will be based on the best available information.

As additional information becomes available, and as appropriate, ATSDR may, at its discretion, expand these preliminary health assessments into full health assessments adding to the overall characterization of the site, or prepare addenda to the health assessments addressing the public health impact of either individual or a combination of operable units at the site.

The health assessments, including any addenda, will become part of the administrative record.

7.8 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RI/FS or RFI/CMS work plans or in other work plans that may be used to describe sampling and analyses at CERCLA or RCRA past-practice units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making. This range of QA/QC options is included in the "Data Quality Strategy for Hanford Site Characterization" (as listed in Appendix F). This document is subject to approval by EPA and Ecology.

Based upon the data quality objectives, the DOE shall comply with EPA guidance documents for QA/QC and sampling and analysis activities which are taken to implement the Agreement. Such guidance includes:

- "Guidelines and Specifications for Preparing Quality Assurance Program Plans" (QAMS-004/80);
- "Interim Guidance and Specifications for Preparing Quality Assurance Project Plans" (QAMS-

005/80); and

- "Data Quality Objectives for Remedial Response Activities" (EPA/540/G-87/003 and 004).

In regard to quality assurance requirements for construction of land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

For analytical chemistry and radiological laboratories, the QA/QC plans must include the elements listed in "Guidance on Preparation of Laboratory Quality Assurance Plans" (as listed in Appendix F). DOE shall submit laboratory QA/QC plans to EPA and Ecology for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, the lead regulatory agency may request DOE to provide QA/QC documentation. Any such data that does not meet the QA/QC standards required by this section shall be clearly flagged and noted to indicate this fact.

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Hanford Federal Facility Agreement and Consent Order

APPENDIX 2 ACTION PLAN

8.0 FACILITY DECOMMISSIONING PROCESS

8.1 INTRODUCTION

The facility decommissioning process defines the approach by which DOE, with involvement of the lead regulatory agencies, will take a facility from operational status to its end state condition (final disposition) at Hanford. This is accomplished by the completion of facility transition, surveillance and maintenance (S&M), and disposition phase activities. The process is designed to integrate DOE-HQ guidance (U. S. Department of Energy, Office of Environmental Restoration, Decommissioning Handbook, DOE/EM-0142D, March 1994, and U. S. Department of Energy, Office of Environmental Management, Decommissioning Resource Manual, DOE/EM-0246, August, 1995, hereafter referred to as the EM-40 Guidance Documents) and to ensure compliance with environmental regulations, including waste management, closure and post closure requirements under RCRA, and remedial and/or removal action requirements under CERCLA.

Facility decommissioning at Hanford will proceed on a priority-based path that results in an expedient and cost efficient transition of facilities to a safe and stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment. The methodology allows for cases where higher priority Hanford cleanup activities warrant deferring regulated unit closure actions until prioritization decisions are made to proceed with the disposition phase.

Notwithstanding any other provision of Section 8.0, EPA and Ecology reserve the right to require closure in accordance with Federal and State hazardous waste law, and the Agreement, and to require response or corrective actions in accordance with RCRA and CERCLA and the Agreement, at any time. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

8.1.1 Background

The DOE consolidated virtually all of its waste management, remedial action and decontamination and decommissioning (D&D) program activities in 1989 into the Office of

Environmental Management (EM). Within EM, the Office of Environmental Restoration was assigned responsibility for performing remedial actions, S&M, and dispositioning activities for DOE facilities.

With the down-sizing of both nuclear weapons inventories and nuclear material production capabilities, the DOE-HQ established the Office of Facility Transition in mid-1992. This office is chartered with management of the transition from operational status to shutdown status for the numerous facilities used for nuclear material production or otherwise involved in the DOE nuclear program.

8.1.2 Applicability

This section applies to the transition, the surveillance and maintenance, and/or the disposition of key facilities located on the Hanford Site that are not fully addressed under Section 6.0 (TSD Process) or Section 7.0 (Past-Practice Process) of this Action Plan.

Key Facilities subject to this Section 8.0 process which have been identified by the parties to date include the following: PUREX, PFP, B Plant, FFTF, UO₃ Plant, U Plant, REDOX (202-S Building), and DOE's old reactor buildings (specifically: 105-B, 105-C, 105-F, 105-D, 105-DR, 105-H, 105-KE, 105-KW, and 105/109-N buildings). The 105 reactor buildings, UO₃ Plant, U Plant, and REDOX are recognized as already having been transferred to DOE's Environmental Restoration Program. On approval of each facility Surveillance and Maintenance Plan by the Lead Regulatory Agency (see section 8.6), these facilities will be recognized as having entered the surveillance and maintenance phase as described within this section.

Other key facilities that the parties agree are subject to Section 8.0 will be decommissioned in accordance with the provisions of this section and any milestones established specific to those facilities. If there is a conflict between the provisions of this section and of a specific milestone, the provisions of the milestone will prevail. This section does not apply to the following:

- Any waste disposal unit (e.g., crib, pond, ditch, landfill)
- RCRA treatment or storage units either fully closed or scheduled for closure under Section 6.0 that result in the final disposition of the facility, or result in a remaining facility that does not qualify as a "key facility".
- Any facility which is fully addressed as part of a past-practice operable unit under Section 7.0 (i.e., N-area pilot project) or which is addressed under Section 7.0 to a condition which results in a remaining facility that does not qualify as a "key facility".
- Facilities on the Hanford Site that have already been transferred to the ER Program and which will be decommissioned as part of operable unit remediation under Section 7.0 or under DOE authority, unless identified as key facilities by the parties.

Additional key facilities will be identified by the parties on a case by case basis, using the following general criteria:

- Facilities that do not fall into any of the categories summarized in the bullets above,

- Facilities that will undergo a surveillance and maintenance period greater than 180 days with hazardous substances to be left in place,
- Facilities where physical closure actions must be performed in conjunction with facility disposition, and/or
- Facilities that may be addressed in conjunction with any other facility which qualifies as a key facility.

Upon identification as a key facility, EPA and Ecology will designate a lead regulatory agency in accordance with Section 5.6.

Key facilities do not include uncontaminated structures (i.e., contains no hazardous substances), or facilities which are fully dispositioned following a decision to remove them from use.

Only with the agreement of DOE and the lead regulatory agency may key facilities (or portions thereof) be used for alternative beneficial uses, and be addressed independent of Section 8.0.

8.1.3 Decommissioning Relationships and Key Planning Documentation

Table 8-1 shows the relationship between phases, processes and key planning documents that support the overall decommissioning process. A general description of key planning documents is included here. Additional information is provided in following text specific to the individual phases. Definitions specific to the facility decommissioning process are included in Appendix A of this document. The process described in Section 9.3 will be used to modify applicable documentation.

Table 8-1 Decommissioning Process Relationships

DECOMMISSIONING PHASES	FACILITY PROCESSES	KEY PLANNING DOCUMENTS
Transition	Stabilization Deactivation Surveillance Maintenance Decontamination	Project Management Plan (PMP)
		Facility Transition End Point Criteria Document
		Preclosure Work Plan
		Surveillance and Maintenance Plan
Surveillance and Maintenance	Surveillance Maintenance Deactivation* Decontamination*	Surveillance and Maintenance Plan

Disposition	Decontamination Dismantlement Entombment Closure Site Restoration	Decision Document (e.g., Action Memo, ROD, RCRA Closure Plan**)
		Project Design Report

* Completed on a case-by-case basis to further reduce facility surveillance and maintenance expenses.

** RCRA Closure Plan applicable to TSD units within the facility.

Project Management Plan: An internal DOE management plan prepared to aid in governing the successful completion of a project. The Plan defines DOE and DOE contractor organization, and responsibilities for executing the project. It outlines the work breakdown structure for the activities, clearly identifying the scope of work based on the technical criteria established. This document incorporates cost and schedule planning. The PMP is used to establish cost controls and milestones for tracking and reporting status on key processes and activities from start to finish of the phase. Project Management Plans are prepared during the transition phase.

Facility Transition End Point Criteria Document: A document developed during the transition phase that establishes the physical state of the systems and spaces within the facility to be achieved at the end of the transition phase. This document is used to satisfy programmatic requirements for transition to the S&M phase. The actual condition of the facility at the end of transition will be documented as part of the S&M plan.

Preclosure Work Plan: A document submitted during the transition phase. The preclosure work plan will contain, but is not limited to, elements summarized in Table 8-2. This preclosure work plan is based in part on the facility transition end point criteria document and S&M plan. The transition end point criteria document and the S&M plan are considered part of the preclosure work plan as they pertain to information related to RCRA TSD units.

Surveillance and Maintenance Plan: A document outlining facility specific activities taken to address essential systems monitoring, maintenance and operation requirements necessary at a facility to ensure efficient, cost effective maintenance of the facility in a safe condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed.

Project Design Report: The Project Design Report (PDR) is prepared to describe activities during the disposition phase of the facility. The PDR is prepared consistent with Section 7.0 requirements for the remedial design/remedial action phase of the project. The report will contain a definition of the project scope (i.e., goals, objectives, background information, and scope statement), description of specific tasks, cost, and schedule for the completion of disposition. The intent of the report is to identify the basis and provide direction for preparation of detailed work packages or procedures utilized for conducting the project tasks. The contents of the PDR may be submitted as a separate document (i.e., Remedial Design Report) or as part of an overall design document. The lead regulatory agency will be involved in the development of the PDR and have approval in part as appropriate for the final document.

Decision Document: Documentation required to authorize implementation of the disposition

phase activities: a) will be prepared in accordance with the provisions of Section 7.0 and the joint policy on Decommissioning of DOE Facilities under CERCLA, and b) will be prepared in accordance with Section 8.8 for any necessary RCRA TSD closure plans. The decision document (e.g., Action Memorandum, Record of Decision, Closure Plan) issued by the lead agency in accordance with Section 7.0 or Section 8.8 of the Action Plan will be the decision document for key facilities and will define the final end states as developed under Section 8.7.1, as well as preliminary cost and schedules.

8.2 FACILITY OPERATIONS

Facility operations precede the decommissioning process and consequently are only briefly addressed in this section. Prior to receiving a formal shutdown notice from DOE-HQ, facilities that do not have a future mission may begin preparing for the transition phase of the decommissioning process. Preparation may include conducting final process vessel clean out runs in order to expedite transition phase activities and to avoid the necessity for operational permitting of process vessels containing hazardous materials for storage and/or treatment following a determination that their contents are dangerous wastes. Facility personnel may also initiate preliminary development of transition end point criteria to describe the physical state of the systems and spaces within the facility at the end of the transition phase. The process of developing transition end point criteria will be structured to specifically incorporate regulatory, tribal and stakeholder input and involvement. Once a shutdown order has been received or a separate agreement is made by the parties, the facility will enter the transition phase as described in Section 8.5.

8.3 DECOMMISSIONING PROCESS PLANNING

The parties agree that sufficient up front planning for facilities that will undergo decommissioning is necessary to support the budget planning process and to facilitate integration and prioritization of decommissioning with other Hanford cleanup efforts. The parties also recognize, however, that there may be unanticipated situations in which it will be necessary to take immediate actions to abate significant threats to human health or the environment.

8.3.1 Long-Term Planning

DOE developed and submitted its long-term facility decommissioning plan covering key Hanford facilities to Ecology and EPA for review in June, 1996. This plan and associated Agreement commitments (including those made pursuant to Section 8.3.2) are expected to aid the parties in addressing overall decommissioning planning for existing and future facilities on the Hanford Site. The plan categorized facilities through a series of key decision-making questions such as the logic process shown in Figure 8-1. The parties recognize that there are a large number of facilities on the Hanford Site. However, many of the facilities are administrative and/or small in nature and will fall into the category of non-key facilities. A listing of these non-key facilities will be maintained for information purposes. Many facilities are associated with and may be addressed as part of a larger facility. In these cases, facility complexes will be identified as one key facility for the purpose of implementing the decommissioning process.

For key facilities subject to the decommissioning process under this section, the plan includes a long-term road map depicting the approximate time periods that the key facilities (or facility complexes) are expected to undergo transition, surveillance and maintenance, and/or disposition. The road map is for use by the parties to assist in the planning process in order to integrate and prioritize

work, and is not considered a committed schedule. Such commitments will be established under the Agreement (see Section 8.3.2). This plan will be updated biennially as part of the biennial review (see Section 8.3.3).

Figure 8-1. Predecommissioning Planning

8.3.2 Negotiations

The long-term facility decommissioning plan, as well as pertinent Agreement milestones and associated commitments, will be used by the parties as aids in scheduling future decommissioning related negotiations. Such negotiations will be coordinated with the facility planning phases discussed under Sections 8.5 and 8.7.

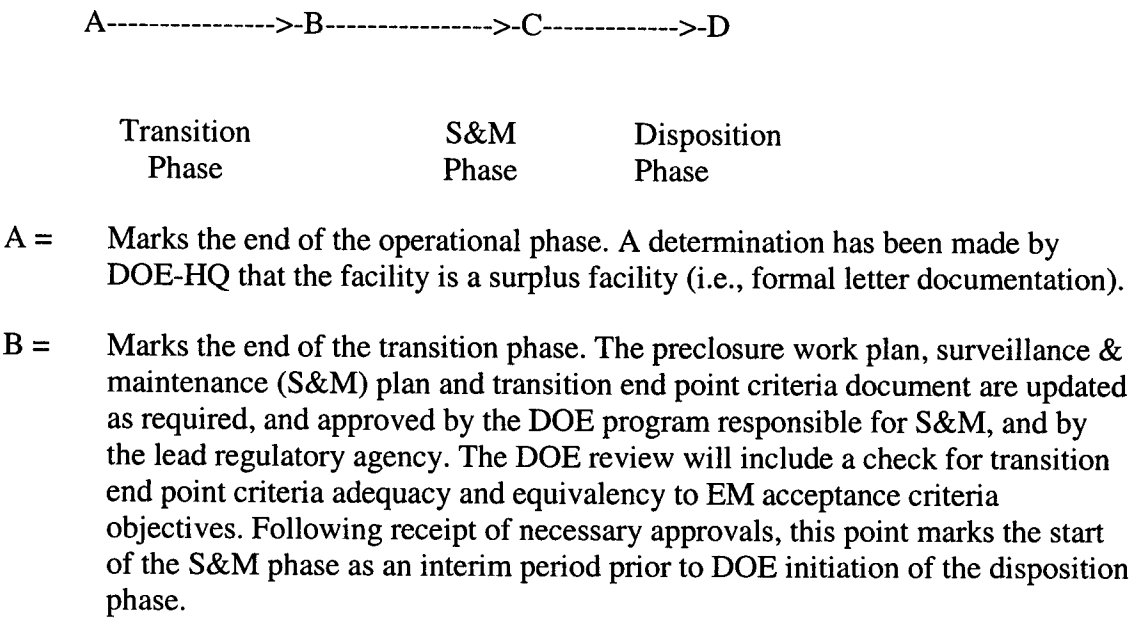
8.3.3 Biennial Review and Update

The parties will; (1) conduct a biennial review of facility/unit status, the long-term facility decommissioning plan, and associated Agreement commitments; (2) discuss current priorities; (3) and assess what changes are necessary. Based on this review and the latest DOE guidance associated with the future use of facilities, DOE will update and submit the long-term facility decommissioning plan and any draft changes addressing proposed Agreement modifications to EPA and Ecology.

8.4 GENERAL DECOMMISSIONING PROCESS

The typical facility decommissioning process, shown in Figure 8-2, depicts the sequential phases a facility undergoes following facility operations and includes transition, surveillance and maintenance (S&M), and disposition. This process is normally initiated following a decision from DOE-HQ to shut down a subject facility and proceed with decommissioning activities. The process time frame is established by milestones and associated target dates negotiated as part of the Agreement, and in most cases will be established one phase at a time.

Figure 8-2 Typical Decommissioning Process



- C = Decision to proceed with disposition phase.
- D = Completion of disposition phase in compliance with applicable or relevant and appropriate requirements and in a condition protective of human health and the environment. (Note: All associated RCRA closure actions are completed at this point.)

Figure 8-2 has been expanded in Figures 8-3 through 8-5 to include individual process steps involved with each of the subject phases. Figures 8-3 through 8-5 identify actions involving regulatory, tribal, and public involvement, and those actions or documents requiring specific regulatory approval. Agreement negotiations are shown as part of the transition, S&M and disposition phases. More detailed descriptions of individual phases, actions and documentation are discussed in Sections 8.5 through 8.7.

8.5 TRANSITION PHASE

The transition phase of a facility is initiated when a formal shutdown decision is made by DOE. Figure 8-3 shows a breakdown of the activities associated with the transition phase. The numbers shown in the boxes correspond with the section numbering from this document. Discussion specific to RCRA TSD closure plan preparation and submittal is contained in Section 8.8.

8.5.1 Transition Planning

Early in the transition phase, project goals and objectives are developed in conjunction with regulatory, tribal and public input and involvement to enable a mutually agreeable and efficient transition. Vital to the success of this phase is development of transition end point criteria and S&M planning information. Transition end point criteria and S&M planning are discussed in greater detail in Sections 8.5.3 and 8.5.4, respectively. DOE will initiate discussions with the lead regulatory agency, tribes and the public to identify issues and develop proposals within three months of an official shutdown notice decision made by DOE-HQ.

During the transition planning stage, NEPA documentation supporting transition will be initiated as necessary and a preclosure work plan or closure plan will be developed for RCRA TSD units requiring RCRA closure. Where final closure of a unit does not need to be performed in conjunction with key facility disposition, a closure plan will be submitted. Documentation produced during this stage will support protection of human health and the environment and consider waste minimization and pollution prevention opportunities.

8.5.2 Project Management Plan

The Project Management Plan (PMP) is prepared to describe how transition phase activities will be managed. The PMP contains work breakdown structures, cost and schedule information, and summarizes major project targets and Agreement milestones. If necessary, a revision to the PMP will be made at the conclusion of the Agreement negotiations to ensure consistency with scheduling agreements. The process of developing and revising the PMP is depicted in Figure 8-3.

Figure 8-3. Transition Phase Breakdown

8.5.3 Transition End Point Criteria

DOE-HQ has developed a set of generic acceptance criteria for use complex wide as a target for acceptance into the S&M phase. Based on these generic acceptance criteria, facility specific transition end point criteria are developed throughout the transition phase with intent to establish acceptable final conditions of systems (i.e., tanks, piping) and spaces (i.e., rooms, areas) at the end of the transition phase. In general, the acceptance criteria require:

- documentation for the active systems and structural integrity of the facility,
- updated permitting and documented regulatory status that reflects the shutdown, stabilized condition of the facility,
- documentation of remaining hazardous and radioactive material in the facility,
- documentation of and facility history for the shutdown systems, and
- a DOE approved S&M Plan for the facility.

The transition end point criteria are tailored specifically to the facility in question and are based on the EM acceptance criteria and regulatory, tribal and public input. Transition end point criteria will be developed and documented early in the transition phase in conjunction with discussions with the regulators, tribes and stakeholders to facilitate achieving mutually accepted criteria. Aspects of the criteria may evolve during transition necessitating revisions and refinements to the criteria.

Transition end point criteria are applicable to all facilities, and their equipment and systems accepted into a surveillance and maintenance phase. All transition end point criteria will be initially developed to incorporate regulatory, tribal and stakeholder input and values. However, lead regulatory agency approval over transition end point criteria will be specific to regulated units, and/or hazardous substances proposed to remain in the facility after the transition phase is complete. Transition end point criteria will take the form of a document addressing both regulated and non-regulated equipment and systems. This document will be submitted to the lead regulatory agency in conjunction with the preclosure work plan and S&M plan. Transition end point criteria will be consistent with, and will not prejudice the development of acceptable end state criteria. Changes to approved transition end point criteria will be coordinated with the lead regulatory agency, and approved for changes affecting regulated units and hazardous substances that will remain in the facility.

8.5.4 Surveillance and Maintenance Plan

A surveillance and maintenance (S&M) plan is developed along with transition end point criteria since the selected transition end point criteria directly dictate actions that will be performed during the S&M phase. The S&M plan describes facility-specific activities to be taken in order to adequately address monitoring, maintenance and operational requirements for the essential systems at a facility. It will ensure that the facility is maintained cost effectively and in a safe, stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed. Although the S&M plan evolves throughout the transition phase, focused efforts and coordination with the lead

regulatory agency, tribes and stakeholders are emphasized early in the transition phase to facilitate a mutually agreeable approach to S&M.

The S&M plan will cover hazardous substances and both regulated and non-regulated equipment and systems. Although the S&M plan will be developed to incorporate regulatory, tribal and stakeholder input and values, lead regulatory agency approval of the S&M plan will be specific to regulated units and hazardous substances in the facility. Post closure care activities will be negotiated with the lead regulatory agency on a case by case basis and incorporated into the S&M plan.

For facilities that contain RCRA TSD units, the S&M plan developed during the transition phase will be submitted to Ecology in conjunction with the preclosure work plan and the latest transition end point criteria document.

8.5.5 Proceed with and Complete Transition Activities

In accordance with transition planning and Agreement negotiations, internal work plans and procedures are developed to aid accomplishing the facility specific transition phase tasks. Procedures provide operational guidance for the workers to achieve the objectives outlined in the facility transition planning documentation. As systems and spaces reach their identified transition end points, S&M activities are initiated consistent with the S&M plan. At the point where all systems and spaces at the facility achieve their respective transition end point conditions, the facility will await transfer to the S&M phase contingent upon verification of achievement of end point criteria (and acceptance criteria not addressed by the end point criteria). Appropriate records documenting transition related activities will, at a minimum, be maintained through completion of the disposition phase. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

8.6 SURVEILLANCE AND MAINTENANCE PHASE

The surveillance and maintenance (S&M) phase for facilities is conducted in accordance with the S&M plan developed for each facility. For facilities transitioned under Section 8.5, the S&M Plan is developed as part of the transition phase. For key facilities (See Section 8.1.2), which did not proceed through formal transition, but which have been transferred to DOE's Environmental Restoration Program, S&M Plan(s) will be submitted in accordance with established Agreement milestones. The S&M phase is shown in Figure 8-4. The objectives of the S&M phase are to ensure adequate containment of any contaminants left in place and to provide physical safety and security controls and to maintain the facility in a manner that will present no significant risk to human health or the environment.

S&M plans will be prepared by DOE and will detail facility aspects and associated requirements including the following: (1) surveillance, (2) maintenance, (3) quality assurance, (4) radiological controls, (5) hazardous substance inventory, management and protection, (6) health and safety/emergency preparedness, (7) safeguards and security, and (8) cost and schedule. DOE shall comply with all applicable environmental, safety and health, and security requirements throughout the S&M phase.

8.6.1 Initiation of S&M Phase

The S&M Phase will start after plant operators have verified the transition end points, the lead

regulatory agency and DOE-HQ have received the verification, and all appropriate approvals have been received. Initiation of the S&M phase is shown as the first box in Figure 8-4.

8.6.2 Biennial Evaluations of Disposition Priorities

Throughout the S&M phase, biennial evaluations of long term S&M and disposition plans and schedules will be performed. These evaluations will be performed in conjunction with the biennial reviews discussed in Section 8.3.3 and Agreement negotiations to identify, evaluate and assess the status of Hanford Site priorities as well as tribal and stakeholder values. S&M surplus facilities will be included in the evaluation of disposition priorities.

8.6.3 Ongoing S&M Activities

Ongoing S&M activities will be conducted in accordance with the approved S&M plan and associated Agreement commitments until a decision is made by DOE-HQ to initiate the disposition phase, or actions are required by the lead regulatory agency pursuant to the terms of Sections 8.3.3 or 8.1.

8.7 DISPOSITION PHASE

The disposition phase is initiated following a decision by DOE-HQ, or may result from a decision by the lead regulatory agency pursuant to the terms of Section 8.1. Figure 8-5 shows a breakdown of the activities associated with the disposition phase. The numbers identified in the boxes correspond with applicable discussion below. Discussion specific to closure plan revision is deferred to Section 8.8.

Figure 8-4. Surveillance and Maintenance Phase Breakdown

8.7.1 Disposition Phase Planning

Early in the disposition phase, project goals and objectives are developed in conjunction with lead regulatory agency, tribal and public input and involvement to enable a mutually agreeable and efficient disposition of the facility. A cooperative effort among all parties will be required in order to establish and revise the disposition end state consistent with applicable requirements. DOE will initiate discussions with the lead regulatory agency, tribes and public to identify issues, evaluate alternatives, and develop a proposed disposition alternative to meet defined end states.

The facility specific disposition end states are developed during the disposition planning phase with the intent to establish the ultimate acceptable condition of systems and spaces at the end of the disposition phase. Disposition end states will be developed and documented early in the disposition phase in conjunction with the lead regulatory agency, tribes and stakeholders to facilitate mutually acceptable criteria. Aspects of the end states that pertain to RCRA TSD units and/or hazardous substances shall be developed, revised or refined only with the approval of the lead regulatory agency.

Disposition end states will be initially developed to incorporate lead regulatory agency and stakeholder input and values. The disposition end states will be contained in a document covering hazardous substances and both regulated and non-regulated equipment and systems. The lead regulatory agency will have approval authority over disposition end states for regulated RCRA TSD

units and hazardous substances. This document (e.g., EE/CA, Proposed Plan) will be prepared in accordance with Section 7.0 and will be submitted to the lead regulatory agency in conjunction with any necessary closure plan. The final draft Closure Plan for RCRA TSD units will be submitted for public review and comment at the same time as the disposition planning document. DOE and the lead regulatory agency may establish Agreement commitments during the planning phase to be incorporated into the decision documentation in Section 8.7.2.

8.7.2 Decision Documents

Documentation required to authorize implementation of the disposition phase activities: a) will be prepared in accordance with the provisions of Section 7.0 and the joint policy on Decommissioning of DOE Facilities under CERCLA, and b) any necessary closure plans for RCRA TSD units will be prepared in accordance with Section 8.8. The decision document (e.g., Action Memorandum, Record of Decision, Closure Plan) issued in accordance with Section 7.0 or Section 8.8 of the Action Plan will define the final end states as developed under Section 8.7.1, as well as preliminary cost and schedules.

Figure 8-5. Disposition Phase Breakdown

8.7.3 Project Design Report

The Project Design Report (PDR) is prepared to describe activities during the disposition phase of the facility. The PDR is prepared consistent with Section 7.0 requirements for the remedial design/remedial action phase of the project. The report will contain a definition of the project scope (i.e., goals, objectives, background information, and scope statement), description of specific tasks, cost, and schedule for the completion of disposition. The intent of the report is to identify the basis and provide direction for preparation of detailed work packages or procedures utilized for conducting the project tasks. The contents of the PDR may be submitted as a separate document (i.e., Remedial Design Report) or as part of an overall design document. The lead regulatory agency will be involved in the development of the PDR and have approval in part to ensure consistency with the final decision document.

8.7.4 Proceed with and Complete Disposition Phase Activities

In accordance with disposition planning and associated Agreement commitments, implementing documentation will be developed to accomplish facility-specific disposition phase tasks. Detailed work packages and procedures provide operational guidance for the workers to satisfy the objectives outlined in the disposition planning documentation. At the point where all systems and spaces at the facility achieve their respective disposition end state condition, final disposition is achieved and the end states will be verified. Appropriate records documenting transition and closure related activities will be maintained on file. During the disposition phase, DOE shall comply with applicable environmental law, safety and health, and security requirements.

8.7.5 Verification of Disposition End State

During the closeout and verification of the disposition phase, achievement of disposition end state criteria will be verified. DOE will perform verification surveys and sampling. Verification will specifically tie to closure planning requirements for applicable regulated units. All verification results, regardless of the methods used, will be available to the public.

8.7.6 Integration of Disposition Phase with Operable Units

As shown on Figure 8-1, some facilities will be addressed fully in conjunction with operable unit activities under Agreement Section 7.0 or under DOE authority. These facilities are not covered by this Section 8.0. For key facilities that are only partially addressed as part of an operable unit activity, the remaining disposition phase activities will be planned and conducted under this section. This may include the management of soil contamination not accessible during the operable unit activity.

In the event disposition of a key facility proceeds prior to operable unit activity, the disposition of any contaminated soils and site restoration activities may be deferred to follow-on operable unit activities conducted under Section 7.0. Any such agreement will be documented in writing and approved by the DOE and Lead Regulatory Agency executive managers.

8.8 PRECLOSURE WORK PLAN AND RCRA CLOSURE PLAN

Washington's HWMA and associated regulations contained in Chapter 173-303 WAC require owners or operators of dangerous waste treatment, storage or disposal facilities to have a written and approved closure plan. DOE, Ecology and EPA have established a mutually acceptable closure plan format that is being used currently for Hanford Site closure plans. The basic closure plan format contains the following nine chapters: 1) Introduction, 2) Facility Description, 3) Process Information, 4) Waste Characteristics, 5) Groundwater Monitoring, 6) Closure Strategy and Performance Standards, 7) Closure Activities, 8) Postclosure Plan, and 9) References.

The nature of the decommissioning process has led DOE, Ecology and EPA to evaluate the timing of RCRA closure at key facilities. The phased decommissioning process combined with the requirements of NEPA and future land use determinations will often make completion of RCRA closure activities during the transition or S&M phases impracticable. In cases where timely completion of RCRA TSD unit closure is practicable, DOE will prepare, and submit to Ecology for review and approval, a complete closure plan for implementation during the transition phase. In cases where physical conditions and/or unknowns prevent timely completion of closure, DOE will prepare, and submit to Ecology for review and approval, a preclosure work plan for implementation during the transition phase. The preclosure work plan will detail actions to be completed during the transition phase in order to facilitate full RCRA closure in the future. These efforts may include removal of dangerous wastes and hazardous substances and/or removal or decontamination of equipment or structures contaminated with dangerous wastes or hazardous substances. The content of the preclosure work plan and its relationship to the RCRA closure plan are summarized in Table 8-2. The transition phase will not be considered complete until DOE has either completed RCRA closure and/or implemented a lead regulatory agency approved preclosure work plan. In cases where closure is not completed during the transition phase, the S&M plan for the key facility will address RCRA compliance. It is anticipated that, for such units, RCRA closure will be conducted during the disposition phase, however, Ecology may, at any time, choose to accelerate closure timing and/or initiate final closure in order to assure timely protection of human health and the environment. Agreement negotiations during the transition and disposition phases will establish Agreement milestones and target dates applicable to preclosure and closure activities.

In addition to its review and approval of RCRA closure plans and preclosure work plans, the lead regulatory agency will have approval authority in establishing acceptable transition end point

criteria and disposition end states for hazardous substances and associated facility systems and spaces. The transition end point criteria document and/or disposition end states will be submitted to the lead regulatory agency with closure plans and/or preclosure work plans during the transition and/or disposition phases as appropriate (e.g., if closure will occur during the transition phase, the transition end point criteria document will be submitted with the RCRA closure plan). The lead regulatory agency will also have involvement in and receive an S&M plan for each key facility. The S&M plan will be developed by DOE and submitted to the lead regulatory agency during the transition phase in conjunction with the transition end point criteria document and closure plan or preclosure work plan. When approved, the S&M Plan will document any hazardous substances to be left at the facility during the S&M phase.

Table 8-2 Preclosure Work Plan and Closure Plan Elements *

Cpt	Description	Preclosure Work Plan Submitted During Transition Phase	Closure Plan on Submittal, e.g., During Disposition Phase
1	Introduction	ALL	ALL
2	Facility Description	ALL	ALL
3	Process Information	ALL	ALL
4	Waste Characteristics	ALL	ALL
5	Groundwater Monitoring	Documents the nature and extent of groundwater contamination that has occurred and describes actions necessary during the S&M phase	Documents details of groundwater investigation, necessary remediation and monitoring (may be conducted in conjunction with applicable CERCLA operable unit and RI/FS process)
6	Closure Strategy and Performance Standards	Documents the preclosure strategy, end point criteria performance standards and necessary transition phase preclosure activities. This chapter will contain a qualitative assessment of anticipated closure and postclosure outcomes, if known (i.e., clean closure or otherwise)	Remaining details including closure of secondary containment, end state of systems and material left in place, final disposition of vessels, end state of canyon structures and integration with CERCLA remedial activities. Includes cross references to surveillance and maintenance plan
7	Closure Activities	Detailed description of any closure activities and schedule(s)	Describes the remaining closure information/activities related to disposition phase
8	Postclosure Plan	Postclosure activities will be addressed to the extent known	Detailed Postclosure plan if decision is made to leave waste in place
9	References	Includes references used in transition phase of the preclosure work plan	Includes all remaining references

* Requirements of a RCRA closure plan are specified in 40 CFR 264 and Chapter 173-303 WAC, and are only briefly summarized here

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Hanford Federal Facility Agreement and Consent Order

APPENDIX 2 ACTION PLAN

9.0 DOCUMENTATION AND RECORDS

This section categorizes the documents that are described in this action plan, and describes the processes for their review and comment and for their revision if required. In addition, this section identifies the distribution requirements for documents and the requirement for an administrative record.

9.1 CATEGORIZATION OF DOCUMENTS

For purpose of the action plan, all documents will be categorized as either primary or secondary documents. Primary documents are those which represent the final documentation of key data and reflect decisions on how to proceed. Table 9-1 provides a listing of primary documents. Secondary documents are those which represent an interim step in a decision-making process, or are issued for information only and do not reflect key decisions. Table 9-2 provides a listing of secondary documents. Note that only primary documents are subjected to the dispute resolution process in accordance with the Agreement.

9.2 DOCUMENT REVIEW AND COMMENT PROCESS

9.2.1 Primary Documents (with exception of Part B Permit Applications and Closure/Postclosure plans)

Figure 9-1 provides the process flow for reviewing and commenting on primary documents. The flowchart reflects the multiple paths that a primary document may take depending on the type and extent of comments received. The time periods for specific actions are as noted on Figure 9-1. The process shown in Figure 9-1 does not preclude either the EPA or Ecology (whichever has authority regarding the primary document) from taking enforcement action at any point in the process for failure to perform. Comments may concern all aspects of the document (including completeness) and should include, but are not limited to, technical evaluation of any aspect of the document, and consistency with RCRA, CERCLA, the NCP, and any applicable regulations, pertinent guidance or written policy. Comments by the lead regulatory agency shall be provided with adequate specificity so that the DOE can make necessary changes to the document. Comments shall refer to any pertinent

sources of authority or references upon which the comments are based and, upon request of the DOE, the commenting agency shall provide a copy of the cited authority or reference. The lead regulatory agency may extend the comment period for a specified period by written notice to the DOE prior to the end of the initial comment period.

Representatives of the DOE shall make themselves readily available to the lead regulatory agency during the comment period for the purposes of informally responding to questions and comments. Oral comments made during these discussions are generally not the subject of a written response by the DOE.

Upon receiving written comments from the lead regulatory agency, the DOE will update the document and/or respond to the comments (for closure plans, comments will be provided in the form of an NOD). The response will address all written comments and will include a schedule for obtaining additional information if required. The DOE may request an extension for a specified period for responding to the comments by providing a written request to the lead regulatory agency.

Table 9-1. Primary Documents.
Remedial investigation/feasibility study (RI/FS) work plan
Remedial investigation (RI) Phase II report
Feasibility study (FS) Phases I and II report
FS Phase III report
Preclosure Work Plan
Proposed plan
Remedial design (RD) report
Remedial action (RA) work plan
Operation and maintenance (O&M) plan
Closure plan
Part B permit application (for operation and/or postclosure)
RCRA facility assessment (RFA) report
RCRA facility investigation/corrective measures study (RFI/CMS) work plan
RCRA facility investigation (RFI) report (final)

Corrective measures study (CMS) report (preliminary and final)

Corrective measures implementation (CMI) work plan

Corrective measures design (CMD) report

Interim response action (IRA) proposal

Interim measure (IM) proposal

Waste/Material Stream Project Management (Work) Plans (see Action Plan Section 11.5).

Other work plans (as specified in Section 11.5)

Other documents as specified elsewhere in the Agreement

Table 9-2. Secondary Documents.

Hanford Operable Units Report (Currently titled "Preliminary Operable Units Designation Project")

RI Phase I report

RFI report (preliminary)

Hanford Site waste management units report

Sampling and data results

Treatability investigation work plan*

Treatability investigation evaluation report

Supporting studies and analyses

Other related documents, plans, and reports not considered as primary

*Per Section 7.3.6, selected treatability investigation work plans can be established as primary documents by the lead regulatory agency.

Figure 9-1. Review and Comment on Primary Documents. (See Figure 9-2 for Part B Permit Application and Closure/Postclosure Plan Review)

Upon receiving responses to the comments on a primary document, the lead regulatory agency will evaluate the responses. In the event that the responses are inadequate, the matter will enter the dispute resolution process as set forth in the Agreement. However, dispute resolution related to NODs cannot be initiated until after two NODs have been issued by the lead regulatory agency, unless otherwise agreed to by the DOE and the lead regulatory agency. It is anticipated that the majority of the disputes will be resolved during the informal dispute resolution period. Within 21 days of completion of the dispute resolution, or within 30 days of receipt of the lead regulatory agency evaluation of the responses if there is no dispute, the DOE will incorporate the resolved comments into the document. The DOE may extend the period for revising the document by obtaining written approval of the lead regulatory agency.

Upon receiving an updated document, the lead regulatory agency will determine if the document is complete. If major issues still exist, the dispute resolution process can be initiated. If the document is complete, or only minor modifications are necessary, the lead regulatory agency will so notify the DOE. If the lead regulatory agency does not respond and has not notified DOE of the need for an extension, the document becomes final at the end of the 30-day period.

9.2.2 Part B Permit Applications and Closure/Postclosure Plans (Operations and Postclosure)

The process for review of Part B Permit Applications and Closure/Postclosure Plans will be different than for other primary documents due to the size and complex nature of these documents. In addition, Part B Permit Applications do not receive final "approval" from the regulatory agencies. These documents, when complete, are used to form permit conditions. Portions of the applications will be incorporated into the permit along with permit conditions.

Figure 9-2 shows the process for review of Part B Permit Applications and Closure/Postclosure Plans except as provided for in Sections 5.5 and 7.4.2, or otherwise agreed. Upon receiving these documents from the DOE, the lead regulatory agency will provide comments as outlined in Figure 9-2. It is understood by the parties that in many cases the lead regulatory agency will extend the comment period for a specified period of time to accommodate the complexity and size of the document.

If the Part B Permit Application or Closure/Postclosure Plan is determined to be incomplete, comments will be transmitted by the lead regulatory agency in the form of an NOD. Upon receiving an NOD, the DOE will update the document as necessary by following the review/response process outlined in Figure 9-2. With concurrence of the lead regulatory agency, the update may be in the form of either supplemental information to, or a revised portion of, the previously submitted Part B Permit Application or Closure/Postclosure Plan. If the DOE is unable to comply with this timeline, it may request an extension within 30 days of receipt of the NOD. This request will include specific justification for granting an extension, a detailed description of actions to be taken, and the proposed date for resubmittal of the application.

Figure 9-2. Part B Permit Application and Closure/Postclosure Plan Process Flowchart.

Dispute resolution for NODs cannot be initiated until two NODs have been issued by the lead

regulatory agency, unless agreed to by the lead regulatory agency and DOE. Once an application or closure plan is determined by the lead regulatory agency to be complete, the agency will begin drafting the permitting document. The permitting actions are also shown in Figure 9-2. The process for development and maintenance of the Hanford Site permit is discussed in Section 6.2

In addition to standard public notification procedures, the public will be informed about proposed permit and closure actions in a Hanford newsletter. However, it is anticipated that in many cases, comments from the public will result in a public hearing on the draft document. All comments on the draft document, including those received during the public hearing will be addressed in a response summary and incorporated in accordance with 173-303-840(7) and (9) WAC. Public hearing opportunities are further discussed in Section 10.7.

9.2.3 Secondary Documents

Figure 9-3 provides the process flow for reviewing and commenting on secondary documents. As shown, the lead regulatory agency has the option to provide comments or take no action. If comments are provided by the lead regulatory agency, then the DOE will respond in writing. The same criteria for review presented in Section 9.2.1 for primary documents will be used for secondary documents. Secondary documents are not subject to dispute resolution.

9.3 DOCUMENT REVISIONS

Following finalization of a document, the lead regulatory agency, or the DOE may seek to modify the document. Such modifications may require additional field work, pilot studies, computer modeling, or other supporting technical work. This normally results from a determination, based on new information (i.e., information that became available or conditions that became known after the report was finalized), that the requested modification is necessary. The requesting party may seek such a modification by submitting a concise written request to the appropriate project manager(s).

In the event that a consensus on the need for a modification is not reached by the project managers, either the DOE or the lead regulatory agency may invoke dispute resolution, in accordance with the Agreement, to determine if such modification shall be made. Modification of a report shall be required only upon a showing that the requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

Nothing in this section shall alter the lead regulatory agency's ability to request the performance of additional work in accordance with the Agreement. If the additional work results in a modification to a final document, the review and comment process will be the same as for the original document. Minor changes to approved plans which do not qualify as minor field changes under Section 12.4 can be made through use of a change notice. Such plans include RI/FS work plans, remedial action work plans, RFI/CMS work plans, CMI work plans, and other work plans as described in Section 11.5. (Modifications to permits and closure plans will be made in accordance with applicable procedures specified in 173-303 WAC and 40 CFR 270.41). The change notice will not be used to modify schedules contained within these supporting plans. Such schedule changes will be made in accordance with Section 12.0, Changes to the Agreement.

Figure 9-3. Review and Comment on Secondary Documents.

Minor changes to approved plans include specific additions, deletions, or modifications to its scope and/or requirements which do not affect the overall intent of the plan or its schedule. The lead regulatory agency will evaluate the need to revise the plan. If the revision is determined to be necessary, the lead regulatory agency will decide whether it can be accomplished through use of the change notice, or if a full revision to the plan in accordance with this section is required.

The change notice will be prepared by the appropriate DOE project manager and approved by the assigned project manager from the lead regulatory agency. The approved change notice will be distributed as part of the next issuance of the applicable project managers' meeting minutes. The change notice will thereby become part of the Administrative Record. The change notice form shall, as a minimum, include the following:

- Number and title of document affected
- Date document last issued
- Date of this change notice
- Change notice number
- Description of change
- Justification and impact of change (to include affect on completed or ongoing activities)
- Signature blocks for the DOE and lead regulatory agency project managers

9.4 ADMINISTRATIVE RECORD

The administrative record serves basically the same purpose in the CERCLA, RCRA, and State dangerous waste programs. The administrative record is the body of documents and information that is considered or relied upon in order to arrive at a final decision for remedial action or hazardous waste management.

The requirements governing the administrative record for a CERCLA response action are found in Section 113(k) of the CERCLA. Executive Order 12580 and CERCLA guidance documents provide that the administrative record is to be maintained by the regulated Federal facility (i.e., the DOE). The RCRA requirements pertaining to the record are found in 40 CFR 124.9 and 124.18. The State dangerous waste program requirements for the record are found in 173-303-840 WAC.

An administrative record will be established for each operable unit and TSD group and will contain all of the documents containing information considered in arriving at a record of decision or permit. When the investigation process begins at each operable unit or when a permit action for a TSD unit (or group of units) is initiated, the administrative record file will be available to the public for review during normal business hours at the following location:

- Environmental Data Management Center
2440 Stevens Center
Room 1101

Mail Stop: H6-08
Richland, Washington 99352

Two additional indexes of the file will also be available to the public, during normal business hours, located as follows:

- EPA Region 10
Superfund Administrative Record Center
1200 Sixth Avenue
Park Place Building
Mail Stop: HW-113
Seattle, Washington 98101
- Washington State Department of Ecology
300 Desmond Drive
P.O. Box 47600
Lacey, Washington 98503

The DOE will compile and maintain the administrative record file at Richland, Washington, and provide an index of the documents to the EPA and Ecology for their respective files. At the time when the decisional document is signed, all documents forming the basis for selection of the final action(s) must have been placed in the administrative record file. All applicable documents will be available at the Administrative Record locations through one of the following methods: (1) Microfilm, (2) indexes listing documents available by request from the Richland Administrative Record office, (3) Internet access or (4) paper copies.

A hard copy of the administrative records will be maintained in the Richland administrative record file. After one year following the CERCLA record of decision or RCRA permit determination, the hard copies of administrative record documents issued up to those decision points may be removed from the administrative record file. Retrievable copies will be kept on file for a minimum of 10 years. The final decision documentation (i.e., CERCLA proposed plan and record of decision, and RCRA permit) will be maintained in hard copy through completion of all remedial actions or the term of the permit. Current versions of all general documents (e.g., guidance and applicable procedures) will be maintained in hard copy throughout the RI/FS process or through the term of the permit.

Certain types of documents will be included in the administrative record in all cases when considered applicable to one or more operable units or TSD groupings. These documents are shown in Table 9-3.

Table 9-3. Administrative Record Documents.

Factual Information/Data (CERCLA)

Remedial investigation/feasibility study work plan
Remedial investigation Phase I report
Feasibility study Phase I and II report
Feasibility study Phase III report

Proposed plan
Abatement proposal
Interim response action proposal
Documentation of preliminary assessment/site investigation
Treatability study work plan and characterization plan
ATSDR health assessment
Preliminary natural resource survey (by natural resource trustee)
Procedures as specified in work plans
Supplemental work plan
Health assessment
Work plan change notice
Sample data results

Factual Information/Data (RCRA)

Closure Plan
Permit application (Part A and Part B)
Draft permit (or permit modification) or notice of intent to deny
Statement of basis or fact sheet, including all resources to documentation
RCRA facility investigation/corrective measures study work plan
RCRA facility investigation report (preliminary and final)
Corrective measures study report (preliminary and final)
Interim measure proposals
Procedures as specified in work plans
Work plan change notice
Sample data results

Policy and Guidance

Memoranda on policy decision
Guidance documents
Supporting technical literature

Decision Documents

Record of Decision
Responsiveness summary
Letters of approval
Action memoranda
Waiver requests and regulatory agency responses
Final determination pursuant to dispute resolution

Enforcement Documents

Hanford Federal Facility Agreement and Consent Order including Action Plan
Administrative orders
Consent decrees
Affidavits

Tribal Participation

Correspondence to or from the Tribes
Tribal comments
Responses to Tribal comments

Public Participation

Community relations plan
Correspondence to or from the public
Public notices
Public comments
Public meeting minutes
Public hearing transcripts
Responses to public comments
Fact sheets (public information bulletins)

For those which are designated as primary documents (see Table 9-1) the administrative record will include:

- All drafts submitted to the regulatory agencies for review and/or approval
- Any documents submitted by the non lead regulatory agency to the lead regulatory agency for inclusion in the Administrative Record
- Written comments from the lead regulatory agency to DOE (to include Notice of Deficiency on a Permit Application)
- DOE written responses to comments received from the lead regulatory agency
- Final document and any subsequent revisions
- Drafts which are submitted for public comment.
- For public comment documents, the public comments and lead regulatory agency responses (if no comments are received, a letter from the lead regulatory agency shall be included documenting that fact).

For those which are designated as secondary documents (see Table 9-2), the administrative record will include:

- Final document and any subsequent revisions
- Any documents submitted by the non lead regulatory agency to the lead regulatory agency for

inclusion in the Administrative Record

- Written comments from the lead regulatory agency to DOE, if provided
- DOE written responses to comments received from the lead regulatory agency.

Drafts of documents which are undergoing internal review within any party will not be included in the administrative record.

In addition to those documents listed in Table 9-3, the project managers for each party will determine which additional documents should be included in the administrative record. This may include:

- Validated sampling and analysis results
- Supporting technical studies and analyses
- Inspection reports and follow up responses.

The project managers will meet at least monthly, as described in Section 4.1. During these meetings, the project managers will decide which documents are appropriate for inclusion in the record. The DOE project manager will then notify the administrative record staff of these documents to be added to the record.

For public participation documents listed on Table 9-3 the community relations staff for any party may transmit any document which they generate or receive directly to the administrative record staff, with a copy to each affected project manager.

Any documents that the regulatory agency has determined to be subject to an applicable privilege, and that are part of the administrative record, shall be maintained exclusively in confidential administrative record files of the appropriate parties until such time as enforcement action has been taken or the privilege has been waived.

The DOE will maintain an index of all documents entered into the administrative record. A current copy of the index will be distributed at least quarterly to each administrative record file and each public information repository, and will be available for inspection by any of the parties.

9.5 DISTRIBUTION OF DOCUMENTS AND CORRESPONDENCE

Documents and correspondence shall be sent to affected project managers, and the administrative record files as appropriate. Final primary and secondary documents and draft primary documents are sent to the affected project managers from DOE and the lead regulatory agency and the administrative record files, as appropriate.

Note: Documents distributed to the public information repositories are specified in the Community Relations Plan.

9.6 DATA ACCESS AND DELIVERY REQUIREMENTS

9.6.1 Data Reporting Requirements

The project managers will provide a list of the nonlaboratory data collected at each operable unit, and TSD group/unit on behalf of their respective parties at the monthly unit managers meetings. This will allow each party to determine its data needs and to establish the format, quality, and timing for submitting the data.

9.6.2 Agreement Data

Ecology and EPA shall be granted access to all data that is relevant to work performed, or to be performed, under the Agreement. Access to Agreement related databases will be documented in the Agreement Appendix F document "Agreement Databases, Access Mechanisms, and Procedures" (includes all databases and the method of accessing each database). This document will also describe method(s) for regulatory access to DOE communications networks and system configurations to meet electronic transfer of data.

9.6.3 Validation

Data validation shall be performed in accordance with approved sampling and analysis plans and quality assurance project plans (QUAPjPs). Laboratory analytical data validation procedure shall incorporate *Data Validation Guidelines for Contract Laboratory Program Organic Analyses* and *Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses*. The DOE shall make available to EPA and Ecology validated and unvalidated laboratory analytical data. Any document produced by any of the three parties which contains unvalidated or otherwise caveated data shall be marked as such.

The lead regulatory agency shall be notified of the availability of laboratory analytical data via electronic mail, facsimile transmission, or other means as agreed by the parties involved. Notification shall occur within one week of data entry and shall include the following information:

- date(s) of collection
- unit(s) where data collected
- type of data, e.g., ground water
- location of where data is stored, e.g., database
- unique identifier given to each piece of data, e.g., sample ID.

9.6.4 Non-Electronic Data Reporting

For data not available in electronic format, DOE shall meet the data reporting requirements by providing a summary list of new data at the project managers meetings, or as otherwise requested by the lead regulatory agency. This list will include, at a minimum, the information described in the preceding paragraph addressing notification. The lead regulatory agency shall determine on a case-by-case basis if data warrants a more detailed presentation or analysis. This reporting method shall also be used for field screening data. Field screening data shall be accompanied by maps or sketches with

sufficient detail to determine where the data was obtained.

The information shall be submitted to the requesting party within ten days of receipt of the lead regulatory agency's written request, or as otherwise agreed to by the parties involved. In addition, other reporting requirements may be specifically required by the RCRA permit, RCRA closure plans or work plans.

9.6.5 Electronic Data Access Requirements

EPA and Ecology shall have direct read, retrieve, and transfer access to all relevant electronic data and databases. All validated data will be entered into the selected database in accordance with the Data Delivery Schedules in Section 9.6.6. Unvalidated data will be available within 7 days after receipt from the laboratories. Electronic access to Hanford data will be provided to EPA, Ecology and their respective contractor staff when:

- The computer network infrastructure is available to support user access (for systems that cannot support direct access data shall be provided through redundant systems or through copies of data stored in other systems), and
- The database system is accessible and utilized by Hanford personnel doing Agreement related work.

9.6.6 Data Delivery Schedules

The level of quality assurance for each characterization sample shall meet the requirements of Agreement Article XXXI (Quality Assurance) and shall depend on the specified Data Quality Objectives (DQO) as stated in the specific sampling and analysis plans and quality assurance project plans (QAPjPs). Laboratory analysis and quality assurance documentation, including validation, and transmittal to the regulators, shall be limited to the following schedule:

- Transuranic and hot cell samples - 136 days annual average, but not to exceed 176 days
- Single-shell tank samples - 216 days
- Low-level and mixed waste (up to 10 mCi/hour) samples - 111 days annual average, but not to exceed 126 days
- Nonradioactive waste samples - 86 days.

All schedules in this section are effective beginning with the date of individual sampling activities. For unique circumstances, a schedule other than that specified in this section can be agreed to by DOE and the lead regulatory agency. The DOE will integrate all of the data discussed in this section into the appropriate databases and reports.

9.6.7 Other Data Reporting Requirements

The Tri-Party Agreement Strategic Data Management Plan (reference M-35-02) will identify what types of information the DOE will index and a schedule to accomplish the indexing. The indexes will be available to all parties. Depending on the information, the regulators may request the

information either electronically and/or by hardcopy. The hardcopy information shall be provided by DOE within 10 days after receipt of written request.

9.6.8 EPA and Ecology Data

Analytical data that is developed by EPA and/or Ecology and is of value to the three parties will be made available in the appropriate media to the three parties. The regulator(s) developing the analytical data shall provide the data in a format suitable for data storage and retrieval. Other data or information requests will be reviewed and handled on a 'case-by-case' basis directly by the parties involved.

9.6.9 Data Management Agreements

The Data Management project manager meeting will provide the forum for addressing data management needs and issues. Meetings will be held with EPA and Ecology at a frequency agreed to by the parties.

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APPENDIX 2 ACTION PLAN

10.0 COMMUNITY RELATIONS/PUBLIC INVOLVEMENT

10.1 INTRODUCTION

This section describes, in general, the way in which the public will be involved with the implementation of this action plan. The CERCLA, as amended, requires that a community relations plan (CRP) be approved by the EPA prior to initiation of field work related to an RI/FS. The parties have agreed that the CRP is also the proper mechanism to address the public involvement process for all of the RCRA activity to be conducted pursuant to this action plan. In this way, a single document will specify how the public will be involved in these processes.

A CRP is the overall plan for community relations and public involvement. The following sections highlight key elements of the CRP.

10.2 PUBLIC INFORMATION REPOSITORIES

Information will be readily available to the public to ensure meaningful participation. One mechanism for accomplishing this goal is the establishment of public information repositories at major population centers. The locations of the repositories are as follows:

- Government Publications Division
Suzzallo Library
Box 352900
Seattle, Washington 98195-2900
(206) 543-4664
- DOE Public Reading Room
P.O. Box 999
Mailstop H2-53
2770 University Drive
CIC Room 101L
Richland, Washington 99352

(509) 372-7443

- Portland State University
Branford Price and Millar Library
934 SW Harrison
P.O. Box 1151
Portland, Oregon 97207-1151
(503) 725-3690
- Gonzaga University
Foley Center
E. 502 Boone
Spokane, Washington 99258-0001
(509) 328-4220, extension 3844

All applicable documents (see Table 1 of the CRP) will be available at the Public Information Repository locations through one of the following methods: (1) Microfilm, (2) indexes listing documents available by request from the Richland Administrative Record office, (3) Internet access, or (4) paper copies. In addition, copies of drafts when submitted for public comment will be placed in the repositories. Any additional information or documents will be placed in the repositories as deemed necessary by the assigned executive managers. In addition to review of documents at the repositories, the public may also review the administrative record files during normal working hours (see Section 9.4 for discussion and location of administrative records).

10.3 MAILING LISTS AND NEWSLETTER

A single Hanford Site mailing list will be maintained by the DOE for use by all three agencies to ensure consistency. The EPA, Ecology, or the DOE will periodically distribute information in the form of a direct mailing to those persons on the Hanford Site mailing list. Any person may be placed on the Hanford Site mailing list by contacting any of the community relations contacts shown in Appendix E.

A direct mailing will usually be in the form of a public information newsletter. The newsletter is a summary of the status of completed, ongoing, or upcoming activities. In some instances, this newsletter may be used in conjunction with a public notice and/or advertisement (newspaper or radio) to announce an event such as a public meeting, a public hearing, or a formal comment period on a certain document.

10.4 PRESS RELEASES

Any party issuing a formal press release to the media regarding any of the work required by this Agreement shall, whenever practicable, advise the other parties of such press release and the contents thereof, at least 48 hours before the issuance of such a press release.

10.5 PUBLIC MEETINGS

10.5.1 Hanford Public Meetings

In an effort to provide broad and timely perspectives to the public on the Hanford cleanup

priorities and budget decisions, the Tri-Parties will conduct public information meetings. At least one public meeting(s) will be held in the spring to carry out the commitment to involve the public and stakeholders in the DOE budget formulation as reflected in TPA paragraphs 148 and 149. An optional meeting in the fall may be conducted to further discuss and evaluate budget issues. At these meetings, the Tri-Parties will discuss the impact of budget decisions and take public comment and questions on cleanup priorities, as well as outline any changes to cleanup objectives and decisions at Hanford. One of the meetings may be conducted in conjunction with the Hanford Advisory Board. Other meetings will be conducted at public meeting facilities (when available) in key cities in Washington and Oregon. In an effort to be more efficient and effective, these public meetings are encouraged to use innovative techniques to encourage public participation.

10.5.2 Other Public Meetings

Additional public meetings on either CERCLA or RCRA matters will be scheduled on an as-needed basis, by the EPA or Ecology. Situations involving complex issues or a high level of public interest will be reasons to schedule separate public meetings.

When appropriate, public meetings will be scheduled approximately halfway through the public comment period. All public comments, along with the lead regulatory agency's response to comments, will be placed in the administrative record and added to the document index.

10.5.3 Public Notification, Location, and Records

The DOE, at the request of the EPA and/or Ecology, will arrange for all public meetings by means of a public notice in a newspaper of general circulation. When appropriate, any additional cost-efficient means of notification may be used in the area where the meeting is to be held. The DOE will also distribute a direct mail notice to all persons on the Hanford Site mailing list. All such notices shall be made 2 to 3 weeks prior to the date of the public meeting. In addition, at least 30 days prior to the beginning of a comment period, an informal contact will be made to regional stakeholders verifying their interest and participation in a Tri-Party Agreement public involvement topic. Public meetings (formal or informal) will be scheduled, to the extent practicable, to coincide with similar topics due for public comment or other significant stakeholder related events.

The location of any public meeting will be decided in each case by the EPA and/or Ecology. In some cases, the agencies may decide to hold an additional public meeting on a subsequent day at another location.

Upon request by the EPA or Ecology, the DOE will provide an individual to accurately record the events and dialogue at each public meeting. This individual will provide a written meeting summary of the public meeting for review to the requesting agency and the DOE project managers, and the community relations contacts within 14 days following the meeting. The meeting summaries will then be added to the public information repository indexes. Any individual may obtain a copy of the meeting summaries by submitting a request, in writing, to any of the community relations contacts listed in Appendix E.

10.6 PUBLIC COMMENT OPPORTUNITIES

The EPA and/or Ecology will make the documents as listed in this section available for public comment. These documents, during the appropriate public comment period, will be placed in the

public information repositories. They may also be reviewed at the EPA Region 10 office in Richland, Washington; the Ecology office in Lacey, Washington; or the DOE office in Richland, Washington, by contacting any of the community relations contacts listed in Appendix E.

Copies of all public comments received and the agencies' responses to comments will become part of the administrative record and will be added to the public information repository indexes. Additionally, copies of all public comments and agency responses will be made available to any person upon written request to any of the community relations contacts listed in Appendix E.

The public notice for availability of these documents for comment will be published in a major newspaper of general circulation in the areas of significant public interest and through the direct mailing list (see Section 10.3).

The documents to be made available for public comment are as follows.

- Significant Changes to the Agreement. One of the more significant opportunities for public comments pertains to changes made to the Agreement or its Action Plan. Changes to the Agreement or its Action Plan which are significant, as defined by the CRP, shall be made available for public comment for a period of 45 days.
- Feasibility Study Phase III Report/Proposed Plan or Corrective Measure Study Report. Either an FS Phase III report/proposed plan (CERCLA) or a CMS report (RCRA) will be prepared for each operable unit. When the FS Phase III report and the proposed plan for remedy are finalized, the lead regulatory agency will issue a public notice of opportunity to comment on the documents. If the operable unit is being managed under the RPP authority, rather than CERCLA, the RCRA CMS report will be made available for comment as part of the draft permit modification package. The comment period will be 30 days. There are currently no specific requirements for public comment on the CMS report, but the parties consider this report to be the functional equivalent of the FS Phase III report and the proposed plan and, therefore, will make the CMS report available for public comment in the same manner.
- Draft Joint Dangerous Waste/Resource Conservation and Recovery Act Permits (for Treatment, Storage, and Disposal Units). The permit and associated modifications (see Section 6.2) for either new or continued operation of TSD groups/units or for postclosure care of TSD units will be made available for public comment in accordance with 173-303-840 WAC and 40 CFR 124.10. The comment period will be 45 days.
- Closure Plans (for Interim Status Treatment, Storage, and Disposal Units). All closure plans for TSD units (see Section 6.3) that will be closed prior to or instead of issuance of a permit will be made available for public comment, in accordance with 173-303-840 WAC. The comment period will be 45 days.
- Interim Response Actions and Interim Measures. In any case where the lead regulatory agency believes that a release from a unit meets the criteria for an IRA or IM, as described in Section 7.2.4, it shall direct the DOE to submit either an IRA proposal or an IM proposal for remedy selection. Prior to approval, the lead regulatory agency will make the proposed remedy selection available for public comment for a period of 15 or 30 days.
- RCRA Section 3008(h) Orders and RCRA 7003 Orders. The EPA will propose the selected

corrective action remedy to be performed under either RCRA 3008(h) or RCRA 7003 and make it available for public comment prior to final approval. The comment period for 3008(h) orders will be 30 days and the comment period for 7003 orders will be 15 days.

- Community Relations Plan. Any major revisions to the CRP will be subject to public comment for a period of 30 days. The EPA and Ecology will determine whether revisions are major and subject to public comment.

10.7 PUBLIC HEARING OPPORTUNITIES

The draft permit and all modifications are subject to public hearings upon request. A public hearing must be held if any person requests, in writing, that one be held. The request must state the nature of the issues to be raised at the hearing and must include a notice of opposition to the draft permit, in accordance with 173-303-840 WAC and 40 CFR 124.11 and 124.12.

The DOE will, upon request, assist the EPA and Ecology in the same manner as with public meetings, as previously described. The public notice for any public hearing will be made by the DOE at least 30 days prior to the date of the hearing. Transcripts of the public hearing will be distributed in the same manner as those for the public meetings. Any individual may obtain a copy of the transcript by submitting a request, in writing, to any of the community relations contacts listed in Appendix E.

A public hearing will be held in the locality from which the majority of requests for the hearing was generated. In some cases, a public hearing may be held at more than one location, at the discretion of the EPA and Ecology.

10.8 TECHNICAL ASSISTANCE GRANTS

The provision for Federal technical assistance grants (TAG) is found in Section 117(e) of CERCLA. The EPA will be responsible for administering any Federal TAG that is applied for in conjunction with the Hanford Site. The TAG is a mechanism by which the EPA provides reimbursement to the public for a level of effort spent on CERCLA document review. In this way, the public can be directly involved in the review process of various CERCLA documents in more depth than otherwise might be possible. Information on TAGs can be obtained by contacting:

Technical Assistance Grant Coordinator
U.S. Environmental Protection Agency
1200 Sixth Avenue, Mail Stop: HW-113
Seattle, Washington 98101
(206) 553-0603

10.9 WASHINGTON STATE PUBLIC PARTICIPATION GRANTS

The Model Toxics Control Act, Chapter 70.105D RCW, and 173-321 WAC, provide for public participation grants to persons, and not-for-profit public interest organizations. The primary purpose of these grants is facilitating the active participation of persons and organizations in the investigation and remedying of releases or threatened releases of a hazardous substance. Additional information on this program may be obtained by contacting:

Public Participation Grant Coordinator

<http://www.hanford.gov/tpa/tpa-ap10.html>

6/5/00

Solid Waste Program
Washington Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600
(360) 407-6000

10.10 INDIAN TRIBES

The parties recognize that several Northwest Indian tribes have treaty-reserved rights to resources outside their reservation boundaries. In some instances, these resources are either located on the Hanford Reservation or could be affected by activities on the Hanford Reservation. Treaty-reserved rights give these tribes a governmental interest in waste management and environmental restoration activities at Hanford.

DOE and EPA also recognize that, as agencies of the federal government, they have a trust responsibility to American Indian Tribes to consult with the tribes and whenever possible, protect tribal resources which may be affected by agency decision-making. Moreover, DOE, EPA, and the State of Washington have adopted policies which recognize tribal sovereignty and commit to a government-to-government relationship with the tribes.

Given these responsibilities and policies, the parties recognize the unique position of the tribes and the distinction between the rights and responsibilities of the tribes and those of the public. Accordingly, the three parties will seek to facilitate tribal participation in Agreement decision-making at the government-to-government level. Among actions to be taken in this regard are:

1. To involve these Tribes in the hazardous waste cleanup and management processes at the Hanford Site, the parties will hold special briefings for all interested Tribes periodically on major issues that have arisen and/or may arise. Such briefings will include status reports of the significant projects and will be consistent with the methods used to inform and respond to questions of appointed and elected officials, and other governments, regarding ongoing CERCLA and RCRA activities. These briefings may be in writing or in person and may be conducted by either the EPA, Ecology, or the DOE, as appropriate. Notice will be provided to all Tribes in the Hanford region. These briefings and the procedures for determining which Tribes will be briefed are further described in Section 1.0 of the CRP.
2. The DOE will provide copies of any of the documents that are sent to the public information repositories directly to the Tribes upon request. The procedure for determining which documents will be sent is described in Section 1.0 of the CRP. The public information repositories are further discussed in Section 10.2 and in the CRP. The specific list of documents that will be sent directly to each repository is included in the CRP. As discussed in Section 10.2, this may include copies of drafts submitted for public comment. Any comments on these documents must be received by the lead regulatory agency within the time period allowed for public comment. The length of each comment period is specified in Section 10.6, and the specific comment period for each document will be noted in the public notice for comment.
3. In addition to item 2 above, DOE will provide copies of key documents and other

pertinent material to the tribes at the time they are provided to EPA and Ecology for review. Such documents include those identified in tables 9-1 and 9-2 of this action plan, but will also include other technical plans, studies and reports related to this Agreement. Other pertinent material includes, but is not limited to, draft change packages, Agreements In Principle between the three parties, and budget information. For large documents containing supporting technical information (e.g. laboratory data packages), DOE will only provide copies of the transmittal letter to the tribes. The document will then be provided upon request. DOE will periodically consult with the tribes to ensure that they are receiving the appropriate documents and material in accordance with this paragraph.

10.11 CITIZEN SUIT PROVISIONS

Statutory provision for citizen suits under CERCLA is found in Section 310 of CERCLA, as amended. Statutory provision for citizen suits under RCRA is found in RCRA Section 7002. The application of these provisions can be found at Articles X and XXI of the Agreement.

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APPENDIX 2 ACTION PLAN

11.0 WORK SCHEDULE, WORK PLANS, AND ASSOCIATED REPORTS

11.1 INTRODUCTION

This section describes the format and content of the work schedule, supporting plans and reports, and the process for updates and other revisions. This section also identifies those primary documents that contain other schedules that directly support the work schedule.

The work schedule is contained in Appendix D. It includes the major and interim milestones and associated target dates that support the accomplishment of the milestones described in Section 2.0. Both major and interim milestones are enforceable under the Agreement. Dates specified as target dates are incorporated in the work schedule for the purpose of tracking progress toward meeting milestones, and are not enforceable. Plans and reports prepared in support of Appendix D (milestone) requirements will specify more detailed work elements and interfaces between Hanford site programs and projects over time (See Sections 11.4 through 11.7).

Milestones and target dates will be incorporated into the Agreement via the change process defined in Section 12.0, upon issuance of the approved work plan (including Project Management (work) Plan), or report, and incorporated into the work schedule as part of the update process. The work schedule will indicate actions required within each major milestone heading, and at each operable unit identified in Appendix C, or TSD group identified in Appendix B. Such actions include, but are not limited to, the following:

- Permitting activities
- Closures
- Groundwater monitoring
- Achieving compliance with interim status requirements
- Ceasing disposal of contaminated liquids to the soil column

- Investigations and characterization
- Remedial and corrective actions
- Technology improvements
- Acquisition of new facilities, and/or modification of facilities as necessary, e.g., to enhance operations and eliminate long-term storage
- Land disposal restriction requirements

11.2 WORK SCHEDULE

A listing of major and interim milestones, and associated target dates, current as of the last Agreement update, is provided in Appendix D.

11.3 WORK SCHEDULE UPDATES

The work schedule will be updated as necessary in order that printed copies of the Agreement remain reasonably current. Work schedule changes (see Section 12.0 for formal change control system) will be incorporated at this time. Each update will be performed as agreed by the three parties.

The work schedule may also be updated for clarity consistent with previously approved changes made in accordance with Section 12.2. Such updates do not require approval signatures and are not subject to the public comment process.

11.4 DOE MULTI YEAR WORK PLANS AND SYSTEMS ENGINEERING CONTROL DOCUMENTS

Unless otherwise agreed to by the Parties, DOE Multi Year Work Plans (MYWP) and sitewide systems engineering control documents, shall be consistent with this Agreement, e.g., such plans and documents shall describe work necessary to maintain or achieve compliance with the RCRA, CERCLA, and the requirements of this Agreement. At the time such plans/control documents are submitted they shall describe in detail work to be done, e.g., project start and completion dates, interfaces between programs and projects, and performance standards to be met. Such plans/control documents shall include a DOE determination that they are consistent with the requirements of this Agreement.

11.5 WASTE/MATERIAL STREAM PROJECT MANAGEMENT (WORK) PLANS PREPARED UNDER AGREEMENT MILESTONE SERIES M-90-00, M-91-00, AND M-92-00

Waste/Material Stream Project Management (Work) Plans (PMP) described here serve as the key project defining document consistent with Project Hanford and the requirements of this Agreement. As such, these PMPs will detail project objectives, work schedule(s), and expected outputs, integration with other programs and projects and project management alternatives consistent with established Agreement and other project constraints.

PMPs prepared under Agreement/milestone series M-90-00, M-91-00 and M-92-00, will (with the exceptions noted below) be prepared, reviewed, and approved as primary documents to the extent they deal with waste streams regulated by Ecology and/or EPA (non-regulated nuclear materials are identified with the milestone prefix "MX", and are established pursuant to Article XLIX, and paragraph 155). At the time PMPs are submitted for approval, they shall describe in detail the work to be done and performance standards to be met. They shall also include critical path (implementation) schedule(s) with start and completion dates.

While the lead regulatory agency may review and comment on all elements of PMPs submitted pursuant to milestone series M-90-00, M-91-00, and M-92-00, neither Ecology nor EPA shall have approval authority for the PMP Funding Profile element, nor overall approval authority for Project Schedule and Critical Path Analysis, and Change Management elements. These elements shall be incorporated within the PMP as a distinct section or appendix. The Funding Profile shall include a life-cycle projection of annual funding required to accomplish project scope in accordance with the top-level WBS and schedule. The parties also agree that lead regulatory agency review and approval of PMP Schedule and Critical Path Analysis, and Change Management elements is required for the purpose of ensuring consistency with Agreement milestones. PMPs submitted to the lead regulatory agency under this subsection which deal with waste streams regulated by Ecology and/or EPA shall contain following elements:

- Project Goals and Objectives: a brief and concise statement documenting project objectives and requirements.
- Background: A description of key history, considerations, actions, and decisions leading to establishment of the project schedule. Elements will include the following:
 - (i) Physical information covering each identifiably different waste stream component (e.g., current inventories, component generation projections and component characterization data);
 - (ii) Discussion of current commercial disposition activities if any;
 - (iii) A discussion of component and stream stability, and known and suspected instances of contaminant migration;
 - (iv) A summary of (and appropriate citation for) any earlier evaluation of management and disposition options for each waste stream; and,
 - (v) A discussion of specific applicable regulatory requirements, and expected impacts to the project.
- Project Scope: A concise definition of the project including:
 - (i) A description of facility(s)/unit(s) clearly delineating the physical boundaries of the project;
 - (ii) A description of the planned approach (i.e., actions) clearly delineating the action boundaries of the project;
 - (iii) A top-level work breakdown structure (WBS) with an appended WBS dictionary which includes a brief description of each WBS element; and,

- (iv) Projected TSD capability relevant to management and disposition of each component. Capability information will include performance and specification requirements and projected capacity needs.
- Project Constraints, including established Agreement milestones: A concise description of externally established schedule requirements (e.g., performance specifications, specified start date(s), finish date(s), or logical relationship) with an identification of their source(s) for the project.
- Schedule and Critical Path Analysis: A logic-tied life-cycle schedule including major and interim milestones for the top-level work breakdown structure (WBS) and the project critical path. This is typically displayed as a milestone and critical path item listing and as an appended GANT chart.
- Key Deliverables/Products: A description of key deliverables and products resulting from each top-level WBS element including critical performance parameters.
- Performance Measurement: Documentation and description of specific performance measures (e.g. milestones and accomplishments) necessary to assess progress toward achieving project and management plan objectives.
- Project Control: Identification of requirements and a summary description of the approach for each of the following:
 - (i) Project interface control (i.e., Site-Wide Systems Engineering); and,
 - (ii) Reporting and notification requirements and processes.
- Change Management: Identification of change control requirements (e.g., thresholds). To include a summary description of the change control process, participants including their roles and responsibilities, and documentation.

Draft Agreement change requests, proposed for approval will be referenced, and attached as an appendix to the PMP. With the exception of Tank Waste Remediation System (TWRS) projects governed by Section 11.8 of this Agreement, each PMP shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on project schedules (e.g., reported progress and critical path analysis) for tracking purposes.

11.6 OTHER WORK PLANS AND SUPPORTING SCHEDULES

Unless otherwise specified, other workplans, including operable unit (OU) workplans prepared under the Hanford Past-Practice Investigation Strategy, shall be prepared, reviewed and approved as primary documents. At the time work plans are submitted for approval they shall describe in detail the work to be done and include the performance standards to be met. They shall also include an

implementation schedule with start and completion dates. The work plan schedule shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers. A change package shall be submitted with the work plan which identifies the interim milestones.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review and approval to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on the supporting schedules for tracking progress.

Required work plans include:

- RI/FS work plan
- Remedial action work plan
- Closure plan
- RFI/CMS work plan
- CMI plan
- LFI work plan
- ERA work plans/EECA's.

ERA work plans/EECA's are not to be prepared, reviewed and approved as primary documents, but are subject to approval in accordance with Section 7.2.4 of the Action Plan. Additional detailed schedules, beyond those contained in the above plans, may be needed as agreed to by the assigned project managers to provide more definitive schedules to track progress. These may be part of other plans or may be stand-alone schedules.

In addition to the work plans previously described, other work plans may be developed for special situations at the request of the lead regulatory agency. These work plans will be considered primary documents as discussed in Section 9.1, and are subject to all work plan requirements.

11.7 SUPPORTING TECHNICAL PLANS AND PROCEDURES

In addition to the requirements as specified in this Agreement, supporting technical plans and procedures may be developed by DOE. They will be reviewed for approval by EPA and Ecology as primary documents or reviewed as secondary documents as determined by EPA and Ecology. In the event that such supporting technical plans and procedures apply only to a specific operable unit, project, TSD group/unit or milestone the lead regulatory agency will provide the necessary review and approval. The DOE may submit such plans or procedures at any time, without request of the regulatory agencies. The EPA or Ecology may also request that specific plans or procedures be developed or modified by DOE, consistent with Article XXX of the Agreement. These technical plans and procedures shall pertain to specific compliance and cleanup activities conducted pursuant to this Agreement and shall provide a detailed description of how certain requirements will be implemented at the Hanford Site. DOE shall comply with the most recent approved versions of these technical plans and procedures and those secondary documents which are in effect.

Appendix F contains a listing of current supporting technical plans and procedures and their respective status. Changes to Appendix F will be accomplished in accordance with Section 12.0. Appendix F will be updated annually in conjunction with the annual update to the Work Schedule.

11.8 TANK WASTE REMEDIATION SYSTEM CRITICAL PATH PROCESS

Tank waste remediation milestones will be established using a critical path process as described in this section. The tank waste remediation program will be established and managed as an integrated system and shall include all activities associated with waste characterization, retrieval/closure, tank stabilization, pretreatment, treatment of high-level and low-level tank waste, acquisition of new tanks, and the multi-purpose storage complex. The parties will develop detailed operating procedures and implement the critical path milestone system on a trial basis, in April 1994, with full implementation by September 30, 1994.

- A. For the purposes of critical path analysis, negotiated dates for completion of single-shell tank waste retrieval, the final closure of single-shell tank farms, and completion of all high-level and low-level tank waste treatment shall be designated as program endpoints and shall be major milestones.
- B. Activities and associated schedules for this program shall be included in the Site Management System (SMS). All activities, milestones, and target dates necessary for tracking the program will be negotiated for inclusion in this Agreement. Activity definition will be based generally on SMS Level 0 schedules, but may in some instances include SMS Level 1. Based on a critical path analysis, any event appearing on the critical path shall be designated as either a major or an interim milestone. Any event not on the critical path shall be designated a target date.
- C. On a semi-annual basis, the integrated schedule shall be updated by the project managers or their designees and the critical path shall be re-evaluated. Updates shall be based on current Site Management System (SMS) information. Additional events falling on the critical path shall be designated as interim milestones. The integrated management schedule shall identify schedule float for each task. Schedule float shall be defined as the amount of time available before an activity becomes a critical path activity. Any activity found to be no longer on the critical path shall revert to target date status.
- D. The Department of Energy shall have the ability to reschedule any activity associated with a target date as necessary to efficiently manage the project, provided such movement shall not adversely affect the critical path or the program endpoints. Project managers shall be advised in advance in writing of any such changes.
- E. Changes to any activity or schedule which affects the critical path, a major or interim milestone, or program endpoints must be requested in accordance with Section 12.0 of the Action Plan.
- F. Based on the information in the monthly SMS report, the Department of Energy shall take all appropriate actions to correct schedule slips in critical path activities.

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APPENDIX 2 ACTION PLAN

12.0 CHANGES TO THE AGREEMENT

12.1 INTRODUCTION

This section provides the process for changing elements of the Agreement, the Action Plan and its appendices. All changes processed using this section shall be subject to the applicable requirements of Section 10.0 Community Relations/Public Involvement.

12.2 AUTHORITY TO APPROVE CHANGES

The appropriate authority level for approval of a change is based on the content of the change as follows.

- Class I Change--A Class I change is a change to parts one through five of this Agreement or a major milestone as defined in Section 2.0. A Class I change requires the approval of the signatories or their successors as shown in Section 14.0.
- Class II Change--A Class II change is any change to the Action Plan or its appendices except as specified for Class I or Class III changes. A Class II change requires the approval of the DOE and affected lead regulatory agency executive managers. Changes made to lead regulatory agency lead designations only may be approved by the EPA and Ecology executive managers.
- Class III Change--A Class III change is a change to a target date in the work schedule (Appendix D) or a supporting schedule that does not impact an interim milestone. A Class III change requires the approval of the DOE and lead regulatory agency project managers. It is not the intent of the parties to revise target dates because work is slightly behind or ahead of schedule. Such schedule deviations will be reflected through the reporting of work schedule status. The use of the change process for revising target dates is for use by the parties to delete, add, or accelerate or defer a target date (by more than 60 days).

12.3 FORMAL CHANGE CONTROL PROCESS

12.3.1 Change Control Form

All changes shall be processed using the change control form included as Figure 12-1. The following describes the process in accordance with the circled numbers shown in Figure 12-1.

Change Number 1	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date 3
Originator 2 Phone		
Class of Change 4 <input type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title 5		
Description/Justification of Change 6		
Impact of Change 7		

Affected Documents			
8			
Approvals			10
9			
_____	_____	___ Approved ___ Disapproved	
DOE	Date		
_____	_____	___ Approved ___ Disapproved	
EPA	Date		
_____	_____	___ Approved ___ Disapproved	
Ecology	Date		

Figure 12-1. Change Control Sheet.

1. Obtain and enter a "change number." The DOE shall maintain a log of all changes by number and title, along with a file copy of the change. An individual will be assigned responsibility for maintaining the change file and will be responsible for assigning change numbers. The change number can be obtained any time during the change process, even after the change is approved.
2. Enter the name of the originator or the requestor.
3. Enter the date the change was initiated.
4. Place an "x" in the box for the appropriate class of change per the criteria identified under Section 12.2.
5. Enter a short title for the change, which will be used primarily as a cross-reference on the change log.
6. Provide a description of the change, along with justification as to why the change should be made. Use an attached sheet of paper if additional space is required.
7. Explain what is impacted by this change.
8. List all documents that will have to be revised because of the change.
9. Obtain approval signatures based on the class of change assigned. Approval via telephone is acceptable, but must be followed up with a signature as soon as possible thereafter.
10. This space is available for special notes, comments, or other signatures as required.

Backup information should be attached as necessary to support the change. Once approved, the change is considered implemented. Affected documents (e.g., work schedule) need not be updated until their next scheduled update.

12.3.2 Request for Extension

Any DOE request for extension shall be submitted in writing and shall specify:

- A. The timetable and deadline or schedule for which the extension is sought;
- B. The length of the extension sought;
- C. The good cause for the extension; and
- D. Any related time table and deadline or schedule that would be affected if the extension were granted.

12.3.3 Response to Requests for Modifications

Within 14 days of receipt of a signed change control form requesting modification of a milestone time table and deadline or other enforceable requirement, each affected Party shall respond by either approving or disapproving the request in writing. If any affected party fails to respond within the 14 day period for review, it shall be deemed to constitute disapproval of the request. If a Party disapproves a requested modification, it shall explain the basis for the disapproval in writing.

12.3.4 Transmittal and Responses to Requests for modification

A signed Class I change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible signatory with copy to the responsible project manager, return receipt requested, or by hand delivery to the responsible signatory.

A signed Class II change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible Executive Manager with copy to the responsible project manager, return receipt requested, or by hand delivery to the responsible executive manager.

A signed Class III change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible project manager, return receipt requested, or by hand delivery to the responsible project manager.

Transmittal of signed change control forms and/or responses may also be made by electronic facsimile, but only if on the day of transmittal the transmitting Party notifies the intended recipient(s) by telephone of such transmittal. The recipient's agency must acknowledge receipt by return facsimile. Documents transmitted by electronic facsimile that are illegible, or that are not received in their entirety, shall not be deemed received.

12.4 MINOR FIELD CHANGES

To ensure efficient and timely completion of tasks, minor field changes can be made by the person in charge of the particular activity in the field. Minor field changes are those that have no adverse effect on the technical adequacy of the job or the work schedule. Such changes will be documented in the daily log books that are maintained in the field.

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13.0 LIQUID EFFLUENT TREATMENT AND DISPOSAL

13.1 LIQUID EFFLUENT DISCHARGE RESTRICTIONS

13.1.1 Introduction

This section addresses requirements for management of restrictions for discharge of liquid effluents to the soil column at Hanford. These managerial requirements are the result, in part, of EPA's and Ecology's reviews of the Liquid Effluent Study (LES) that was submitted by DOE in August 1990. The LES included information on the 33 Phase I and Phase II liquid effluent streams and was conducted outside the scope of this Agreement. However, the parties agreed that information obtained through the LES would be considered new information (see Paragraph 136 of the Agreement) and that such new information could form the basis for reevaluation of the liquid discharge milestones in the Agreement. The liquid effluent discharge milestones are covered in M-17-00.

The purpose of this section is to describe the process which will be followed for establishing additional milestones related to the operation, treatment, and disposal of all 33 Phase I and Phase II liquid effluent discharges to the soil column and to explain the general guidelines to be followed in the establishment of additional milestones. The initial requirements and restrictions contained herein address the seven streams identified by EPA as high priority, as well as five streams associated with the PUREX facility. The parties agree that such requirements and restrictions are necessary to provide near-term assurance that all reasonable steps are being taken to minimize environmental degradation. The long-term solutions are to establish stream specific milestones leading to establishment of treatment processes or ceasing discharges altogether and finally, to regulate any remaining discharges to the soil column through provisions of the State of Washington Waste Discharge Permit Program (WAC-173-216 or, if applicable, WAC-173-218).

13.1.2 State Waste Discharge Permits

The Parties agree that those waste water streams currently discharged to the soil column or any future waste water streams (excluding discharges that are exempt from permitting under Section 121

of CERCLA) discharged to the soil column, which affect groundwater or which have the potential to affect groundwater, shall be subject to permitting under RCW 90.48.160, WAC 173-216, or if applicable, WAC 173-218. While the administration of these provisions of state law will be conducted outside this Agreement, Ecology intends to maintain consistency with this Agreement in implementing the state water quality program at the Hanford Site. Ecology and DOE agree to negotiate a separate agreement by September 1991 or such later date as the Parties agree upon, which will provide a schedule for obtaining permits and all necessary actions leading to obtaining such permits pursuant to these provisions of state law at the Hanford Site. While DOE is agreeing to Ecology's authority to implement a permit program under RCW 90.48.160 and WAC Chapter 173-216 for liquid effluents discharged to the soil column which affect or have the potential to affect groundwater at the Hanford Site, DOE reserves any rights and defenses under state and federal law in any enforcement or permitting activity including the right to appeal such permits to the appropriate tribunal and to raise any objection whatsoever to such permits except that DOE will not challenge Ecology's authority to administer the WAC Chapter 173-216 permit program at the Hanford Site.

13.1.3 Liquid Effluent Discharge Milestones and Negotiations

The Parties will also negotiate additional interim and final milestones to be included in this Agreement addressing, without limitation, waste reduction, interim and final treatment, and/or termination of the 33 Phase I and Phase II streams. These negotiations will be completed by September 1991. Negotiated milestones will be included in the 1992 Annual Update to the Work Schedule (Appendix D).

The Parties are agreeing now to the addition of certain interim milestones (M-17-11, M-17-12, and M-17-13) in Milestone M-17-00. These milestone requirements relate to interim or final remedial actions which will be taken at Operable Units affected by those discharges. The specific descriptions of these milestone requirements are set forth in Appendix D of this Agreement, Tables D-4 and D-5.

13.1.4 Sampling and Analysis Plans

DOE will develop a stream specific sampling and analysis plan (SAP) for the Phase I and Phase II streams which continue to discharge to the soil column as specified in Appendix D, Table D-4. These SAPs shall be subject to approval of EPA and Ecology and will include an implementation schedule. The SAPs must provide for representative sampling of wastes discharged to the soil column, accounting for significant variations in volumes and contaminant concentrations due to operational practices. The frequency of sampling will vary, depending on the consistency or trends established for each stream over time. The SAPs will consider all of the parameters known or suspected to be associated with each liquid effluent stream with consideration given to the influence of operational practice, raw water characteristics, and process knowledge in developing contaminant analysis requirements. DOE will sample and analyze each stream in accordance with the approved sampling and analysis plan. The timing for development of each SAP will be specified on the appropriate M-17-00 milestone as set forth in Appendix D, Table D-4.

13.1.5 Assessment of Environmental Impact of Continuing Liquid Discharges

DOE will develop a methodology for assessing the impact of all discharges (including both active and proposed) on groundwater at the disposal sites. This methodology will rely on available data, additional liquid effluent sampling, analytical results supplied under Section 13.1.4, and optimal

management practices. DOE shall submit this methodology to EPA and Ecology for approval. Within 30 calendar days after notification of approval of the methodology, DOE shall submit a schedule for the completion of the assessments for each of the 33 Phase I and Phase II effluent streams which will continue beyond June 1992.

13.1.6 Stream Specific Requirements and Restrictions

The Parties agree that interim operating restrictions are necessary to provide near-term assurance that all reasonable steps are being taken to minimize environmental degradation while negotiations and follow on actions are pursued. The twelve high-priority streams and the interim operating restrictions to be implemented for each of those streams are identified in Appendix D, Table D-5.

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14.0 SIGNATURE

The undersigned hereby approve this action plan for implementation:

For the United States Environmental Protection Agency:

Chuck Clarke
Regional Administrator, Region 10
U.S. Environmental Protection Agency

Date

For the United States Department of Energy:

John Wagoner
Manager, Richland Operations Office
U.S. Department of Energy

Date

For the Washington State Department of Ecology:

Mary Riveland Director Department of Ecology	Date
--	------

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APPENDIX 2 ACTION PLAN

APPENDIX A

DEFINITION OF TERMS AND ACRONYMS

- Acronyms
- Definition of Terms Used in the Action Plan
- Definition of Other Technical Terms

Acronyms

AAMSR	Aggregate Area Management Study Report
ADS	Activity Data Sheet
AFP	Approved Funding Plan
ALARA	As Low As Reasonably Achievable
ALE	Fitzner/Eberhardt Arid Lands Ecology Reserve
AMU	Aqueous Makeup Unit
ARAR	Applicable, or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substances and Disease Registry
BAT/AKART	Best Available Technology/All Known and Reasonable Technologies
BWIP	Basalt Waste Isolation Project
CAMU	Correction Action Management Unit
CDR	Conceptual Design Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act

CFR	Code of Federal Regulations
CMD	Corrective Measures Design
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
CPP	CERCLA Past Practice
CRP	Community Relations Plan
DCRT	Double-Contained Receiver Tank
DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy - Headquarters
DOE-RL	DOE Richland Operations Office (also known as RL)
DOI	U.S. Department of Interior
DQO	Data Quality Objectives
DRC	Dispute Resolution Committee
DST	Double Shell Tank
D&D	Decommissioning and Decontamination
DW	Dangerous Waste
EA	Environmental Assessment
ECA	Environmental Corporation of America
Ecology	State of Washington Department of Ecology
EEA	Engineering Evaluation of Alternative
EE/CA	Engineering Evaluation/Cost Analysis
EIS	Environmental Impact Statement
EM	DOE Office of Environmental Management
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
FDC	Functional Design Criteria
FFTF	Fast Flux Test Facility
FFS	Focused Feasibility Study
FS	Feasibility Study
GIS	Geographic Information System (used on page G-2)
GPM	Gallons Per Minute
GPS	Global Positioning System
HLW	High-Level Waste
HSWA	Hazardous and Solid Waste Amendments (of 1984)
HSWMUR	Hanford Site Waste Management Units Report
HWMA	Hazardous Waste Management Act
HWVP	Hanford Waste Vitrification Plant

IAMIT	Inter-Agency Management Integration Team
IM	Interim Measure
IRA	Interim Response Actions
IRM	Information Records Management
ISS	Interim Safe Storage (of the reactors)
ISV	In-situ Vitrification
LDR	Land Disposal Restrictions
LERF	Liquid Effluent Retention Facility
LES	Liquid Effluent Study
LFI	Limited Field Investigation
LLBG	Low-Level Burial Ground
LLW	Low-Level Waste
LWDF	Liquid Waste Disposal Facility
M/S	Milestone(s)
MASF	Maintenance and Storage Facility
MB	Megabyte
MCL	Maximum Contaminant Level
MREM	Millirem
MWTF	Multi-Function Waste Tank Facility
NCAW	Neutralized Current Acid Waste
NCP	National Oil and Hazardous Substances Contingency Plan
NCRW	Neutralized Cladding Removal Waste
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Deficiency
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NRDWL	Nonradioactive Dangerous Waste Landfill
O&M	Operation and Maintenance
OMB	Office of Management and Budget
OU	Operable Unit
PA/SI	Preliminary Assessment and Site Investigation
PCHB	Pollution Control Hearings Board
pCi/L	Pico Curies per Liter
PFP	Plutonium Finishing Plant (Z Plant)
PNRS	Preliminary Natural Resource Survey

PUREX	Plutonium/Uranium Extraction
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
QUAPjPs	Quality Assurance Project Plans
R&D	Research and Development
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RD	Remedial Design
RD/RA	Remedial Design and Remedial Action
RD&D	Research, Development, and Demonstration
REDOX	Reduction-Oxidation (Facility)
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RFI/CMS	RCRA Facility Investigation/Corrective Measures Study
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RL	Richland Operations Office (DOE)
RMW	Radioactive Mixed Waste
ROD	Record of Decision
RPP	RCRA Past Practice
SAFER	Streamlined Approach for Environmental Restoration
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act of 1986
SEC	Senior Executive Committee
SHMS	Standard Hydrogen Monitoring Systems
SMS	Site Management System
SST	Single-Shell Tank
SWMU	Solid Waste Management Unit
TAG	Technical Assistance Grant
TBD	To Be Decided / Determined
TCD	Tank Characterization Database
TCRs	Tank Characterization Reports
TMACS	Tank Monitor and Control System
TPA	Tri-Party Agreement
TRU	Transuranic

TRUEX	Transuranic Extraction (process)
TRUSAF	Transuranic Waste Storage and Assay Facility
TSD	Treatment, Storage, and Disposal
TWAP	Tank Waste Analysis Plan's
TWINS	Tank Waste Information Network System
TWRS	Tank Waste Remediation System
U.S.C.	U.S. Code
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USQ	Unreviewed Safety Questions
WAC	Washington Administrative Code
WESF	Waste Encapsulation and Storage Facility
WGL	Washington Guidance Level
WIDS	Waste Information Data System
WPPSS	Washington Public Power Supply System
WRAP	Waste Receiving and Processing
WM	Waste Management

Definition of Terms Used in the Action Plan

Acceptance Criteria:

A set of DOE-HQ approved criteria, as discussed in Section 14 of this document, which ensure a facility has: 1) successfully completed the facility transition phase, 2) prepared surveillance and maintenance (S&M) plan, and 3) maintained the S&M plan as a current document. As a result of meeting these conditions, the DOE Office of Environmental Restoration makes a determination of whether to accept the facility into the S&M phase (until a priority decision is made to disposition the facility).

Administrative Record:

The administrative record is the body of documents and information that is considered or relied upon in arriving at a final decision for a remedial action, interim response action (i.e. removal action), corrective measure, interim measure, RCRA permit, or approved RCRA closure plan.

Agency (Agencies):

Unless otherwise specified, the State of Washington Department of Ecology and the U.S. Environmental Protection Agency.

Agency for Toxic Substances and Disease Registry:

The agency under the Department of Health and Human Services, Public Health Service, that is responsible for conducting health assessments at Superfund sites for EPA. (see Section 7.7)

Agreement:

The Hanford Federal Facility Agreement and Consent Order, including all attachments, addenda and modifications, which are required to be written and to be incorporated into or appended.

Applicable or Relevant and Appropriate Requirement (ARAR):

Any standard, requirement, criteria or limitation as provided in Section 121(d)(2) of CERCLA. (see Section 7.5)

Authority:

Legal jurisdiction enabling a governmental agency to administer and implement federal or state laws and regulations.

B Plant:

Old Hanford plutonium recovery and separations facility converted in 1968 for waste fractionation.

Base RCRA Program:

Those elements of the federal Resource Conservation and Recovery Act of 1976, as amended, for which the state of Washington has received authorization to implement. The state implements its own dangerous waste program in lieu of the base RCRA program.

Burial Ground:

Land area specifically designated to receive contaminated waste packages and equipment, usually in trenches covered with overburden.

Carbon Tetrachloride:

A chlorinated organic solvent used in the plutonium extraction process at the Plutonium Finishing Plant. Carbon tetrachloride is a known human liver carcinogen via inhalation and ingestion. Other toxic effects include central nervous system damage.

Chromium:

An inorganic element, found in the environment in two forms: hexavalent and trivalent. Hexavalent chromium is carcinogenic via inhalation; hexavalent and trivalent chromium are less toxic via ingestion. Hexavalent chromium is a primary contaminant in groundwater beneath the 100 Area at Hanford.

CERCLA Past Practice (CPP):

A process by which a past practice unit containing hazardous substances will be addressed for response action (as opposed to RCRA past practice). (see Section 7.3)

Closure:

Actions taken to reduce the human health and environmental threats posed by a hazardous waste treatment, storage and/or disposal (TSD) facility or unit (along with its structures and contiguous land) after the facility or unit has received its final volume of hazardous waste. Closure must satisfy applicable requirements of 40CFR Part 264, subpart G, and of WAC 173-303-610. For purposes of this Agreement, use of the word closure also includes actions necessary for the facility or unit to meet post closure requirements.

Code of Federal Regulations (CFR):

Regulations developed by the federal government to implement statutory requirements.

Community Relations Plan (CRP):

A report that assesses and defines a community's informational needs concerning potential hazards posed by conditions at hazardous waste sites. The CRP also encourages and ensures two-way communication between an affected community and the public agency overseeing the site cleanup. (see Section 10.0)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund:

The federal statute enacted in 1980 and reauthorized in 1986, which provides the statutory authority for cleanup of hazardous substances that could endanger public health or welfare or the environment.

Conceptual Design Report:

DOE's initial design phase for a new hazardous waste management or support unit at Hanford; a specific element necessary in DOE's planning and budget process.

Confined Aquifer:

An aquifer having defined, relatively impermeable upper and lower boundaries and the pressure of which is significantly greater than atmospheric.

Containment Building (for the purposes of RCRA Interim Status Standards):

A completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units. It has a primary barrier designed to be: 1) sufficiently durable to withstand the movement of personnel and the handling of equipment within the unit and 2) operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment. (Ref. 40 CFR 265.1100)

Contamination (Groundwater and Surface Water):

An impairment of quality by biological, chemical, or radiological materials that lowers the water quality to a degree which creates a potential hazard to the environment, public health, or interferes with a beneficial use.

Corrective Action:

The RCRA processes of interim and corrective measures. See definitions for Interim Measure and Corrective Measure.

Corrective Measure:

An action taken under RCRA authority to permanently resolve a hazardous waste release or to significantly reduce the potential for a future release from a unit or group of units.

Corrective Measures Implementation (CMI):

The step in RCRA past practice process in which a corrective action system is designed and implemented; comparable to the Remedial Design and Remedial Action phases of the CERCLA process. (see Section 7.4)

Corrective Measures Study (CMS):

The step in the RCRA past practice process in which alternatives for a corrective action system are investigated and screened; comparable to the Feasibility Study phase of the CERCLA process. (see Section 7.4)

Crib:

An underground structure designed to receive liquid waste that can percolate into the soil directly and/or after travelling through a connected tile field.

Cyanide:

An extremely hazardous substance used in the extraction of ores, treatment of metals, and in the manufacture of pharmaceuticals.

Dangerous Waste (DW):

Those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.

Data Quality Objective (as used for a planning process):

The formal decision making process between the laboratory and the client that defines necessary analytical requirements based on the end-use of the data.

Days:

Calendar days, unless otherwise specified. Any submittal, Written Notice of Position or written statement of dispute that would be due under the terms of this Agreement on a Saturday, Sunday or federal or state holiday shall be due on the following business day.

Deactivation:

Activities associated with removing facility systems and/or areas from operational service with the intent of being ready for facility transition to either convert the facility for another use or move to permanent shutdown. These activities could include the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other actions to place the facility systems and/or areas in a safe and stable condition so that a surveillance and maintenance program will be able to most cost effectively prevent any unacceptable risk to the public or the environment until ultimate disposition of the facility. (Note: These activities are usually conducted during the facility transition phase.)

Decontamination and Decommissioning (D&D)-(as defined by DOE Order 5840.2 for the D&D Program):

- Decontamination: The process of removing radioactive and/or hazardous contamination from facilities, equipment, or soils by physical removal, washing, heating, chemical action, mechanical cleaning or other techniques to achieve a stated objective or end condition.
- Decommissioning: Actions taken to reduce the potential health and safety impacts of DOE contaminated facilities, including activities to stabilize, reduce, or remove radioactive materials or to demolish the facilities.

Definitive Design:

DOE's design phase in which detailed construction drawings and specifications are prepared following conceptual design for a new, or modification to a facility or unit.

Dismantlement:

The process of disassembly and/or demolition of all or portions of a facility, and appropriate disposal of the residue.

Double Shell Tank (DST):

A reinforced concrete underground vessel with two inner steel liners to provide containment and backup containment of liquid wastes; annulus is instrumented to permit detection of leaks from inner liner.

Entombment:

The remedial process to encapsulate a facility in place as a method of final disposition once cleanout has been completed.

Executive Manager:

For DOE, executive managers are the Assistant Managers with responsibility for implementing terms and conditions of the Agreement regarding the projects under his/her authority. For Ecology, the executive manager is the Program Manager of the Nuclear Waste Program. For EPA Region 10, the Executive Manager is the Project Manager, Hanford Project Office.

Expedited Response Action:

A general term referring to either an interim response action (i. e. removal action) under authority of CERCLA, or an interim measure under the authority of HSWA.

Extremely Hazardous Waste (EHW):

Those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.

Facility (as applied to the Facility Decommissioning Process):

A free-standing building, plant, laboratory, or other enclosure and associated buildings and disposal sites under its responsibility that fulfills, or fulfilled, a specific purpose, and is owned by or otherwise under the responsibility of the DOE-HQ. (Note: This usage differs substantially from that in the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] and RCRA).

Facility Decommissioning Process:

The sequential phases for a facility, once a shutdown decision is made by DOE-HQ, beginning with facility transition, through surveillance and maintenance (S&M), and final facility disposition.

Facility Disposition Phase:

Final period in the life of a facility. This phase occurs when no future use is identified as part of the DOE-HQ facility assessment process and priority is given to proceed with disposition. This phase primarily involves processes to achieve a final end state for the facility (e.g., entombment, and/or dismantlement and site restoration), including closure of any TSDs. Facility disposition may be integrated with cleanup of past-practice units covered under CERCLA Remedial Action or RCRA Corrective Measure Authority.

Facility End Point Criteria (as used during facility transition phase):

Facility-specific criteria prepared during facility transition planning to support development of the transition planning documentation, work plans, and ultimately the project management plan (see Section 14.0). Collectively these criteria provide a technical description of the acceptable state of facility components to be achieved at the end of the facility transition phase and are prepared consistent with EM acceptance criteria objectives outlined in the DOE-HQ EM Guidance Document. This definition includes a status of how tanks, piping, rooms/areas and miscellaneous systems and equipment will be left at the end of the transition phase for a period of surveillance and maintenance prior to final disposition. (Note: End point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

Facility End State Criteria (as used during facility disposition phase):

Facility-specific criteria prepared during facility disposition planning to support development of planning documentation, work plans, and ultimately the disposition Project Management Plan (see Section 14.0). It provides a technical description and end state of the facility or facility area to be achieved (in accordance with the NEPA process, CERCLA and/or RCRA requirements, stakeholder input, and final land use planning) at the end of the facility disposition phase.

Facility Startup:

The time at which the Department of Energy has completed their readiness assessment and has provided the operating contractor approval via letter to start initial operations. At this time the contractor has completed their readiness review verifying that: 1) all operability tests have been completed, 2) operating procedures are available for use, and 3) a trained operating staff capable of operating the facility is in place.

Facility Surveillance and Maintenance (S&M) Phase:

Period in the life of a facility following completion of the transition phase until such time as the facility is dispositioned for other use, or facility disposition has commenced. The S&M program provides direction, management, and performance assessments to be carried out in accordance with an approved S&M Plan. The S&M phase ensures that facilities are maintained in a safe and environmentally sound manner until a final disposition occurs. In addition, the S&M level of effort will be established in the S&M Plan to minimize the costs of final disposition (i.e. as low as economically achievable) whether the facility is planned by DOE-HQ to be released for alternate use or for dismantlement and site restoration, and/or entombment under the facility disposition phase.

Facility Transition Phase:

A period of time during which activities necessary to place the subject facility in a safe, stable, and environmentally sound condition, suitable for an extended period of surveillance and maintenance pending final disposition are completed. Facility transition starts with termination of operations, includes the establishment of a S&M program, and ends with the achievement of facility-specific end point criteria.

These actions could include the collective conversion of the facility for potential other uses or permanent shutdown; by the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other deactivation actions to place the facility in a safe and stable condition for the surveillance and maintenance program. This phase usually involves stabilization and deactivation processes and may also

include some decontamination activities necessary to effectively result in reduced S&M cost for the facility. (Note: Facility transition documentation describing end point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

Fast Flux Test Facility (FFTF):

A liquid metal test reactor that serves as a test tool for advanced reactor technology. Operations at the FFTF began in April 1982 and have since expanded into other areas, such as fusion research, space power systems and isotope production.

Feasibility Study (FS):

The step in the CERCLA process in which alternatives for a remedial action system are investigated and screened (see Section 7.3).

Final Disposition of the Reactors:

Final disposition of the reactors will consist of removing the reactor cores from their present location to a disposal facility in the 200 Area of the Hanford Site as specified in the FEIS-ROD. Associated structure(s) and residual wastes will be removed so as to meet established cleanup requirements pertaining to Hanford's 100 Area. Resulting wastes will be disposed at Hanford's ERDF, or other disposal facility as may be approved by the parties.

Fiscal Year (FY):

As used in this document, the federal government fiscal year, October 1 through September 30. Note that the State of Washington fiscal year is July 1 through June 30.

Focused Feasibility Study:

A study conducted such that a limited number of alternative are evaluated that are focused to the scope of the response action planned.

French Drain:

A rock-filled encasement with an open bottom to allow seepage of liquid waste into the ground.

Future Site Uses Working Group:

A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups with interests in Hanford. The group was charged with the task of articulating a range of visions for the future use of the Hanford Site, discussion on the implications of those visions on cleanup, and probing for commonalities and convergencies within the participants' visions as they applied to cleanup scenarios and priorities.

Groundwater:

Water which fills the spaces between soil, sand, rock, and gravel particles beneath the earth's surface. Rain that does not immediately flow to streams and rivers slowly percolates down through the soil to a point of saturation to form groundwater reservoirs. Groundwater flows at a very slow rate, compared to surface water, along gradients which often lead to river systems. If occurring in significant quantities, groundwater can be withdrawn for domestic, industrial, and agricultural purposes.

Grout:

A fluid mixture of cementitious materials and liquid waste that sets up as a solid mass and is used for waste fixation and immobilization. The Hanford Grout facility will be regulated under the RCRA program.

Grout Campaign:

The complete filling of one vault with treated waste/grout mixture.

Hanford Operable Units Report:

Documents the assignment of individual units to operable units and provides the rationale and justification for the prioritization of the operable units for the remedial investigation process.

Hanford Past Practice Strategy:

A strategy developed with the primary objective to develop a uniform, stream-lined process to meet statutory requirements and integrate/coordinate CERCLA RI/FS and RCRA past-practice RFI/CMS requirements through effective cleanup actions.

Hanford Site:

Also referred to as "Hanford" or "Site", the approximately 560 square miles in Southeastern Washington State, excluding leased lands, and State and Bonneville Power Administration owned lands, which is owned by the United States and which is commonly known as the Hanford Reservation (Figure 7-1 in the Action Plan). This definition is not intended to limit CERCLA or RCRA authority regarding hazardous wastes, substances, pollutants or contaminants which have migrated off the Hanford Site.

Hanford Site Waste Management Units Report (HSWMUR):

Document listing all known waste management units at Hanford and summarizes the wastes handled, dates of use and other information about each unit. (see Section 3.5)

Hanford Waste Vitrification Plant (HWVP):

A facility to be constructed for treatment of high level liquid radioactive waste. Liquids are vitrified or glassified in order to reduce the potential for radioactive and hazardous contamination leaching into the environment. This unit will be regulated under RCRA.

Hazardous and Solid Waste Amendments of 1984, P.L. 98-616 (HSWA):

The reauthorization of the RCRA program, enacted by Congress on November 8, 1984.

Hazardous Substance:

Substances regulated under CERCLA, as defined in CERCLA Sec. 101(14).

Hazardous Waste:

Those wastes included in the definitions of RCRA 1004(5) and RCW 70.105.010(15).

Hazardous Waste Constituent, also referred to as "hazardous constituent" or "constituent":

A constituent that caused the Administrator of the Environmental Protection Agency to list the hazardous waste in 40 CFR Part 261, Subpart D or a constituent listed in Table 1 of 40 CFR 261.24. (Hazardous constituents are listed in 40 CFR Part 261, Appendix VIII.)

Hazardous Waste Management Act (HWMA):

The Hazardous Waste Management Act, codified at Ch. 70.105 RCW, and its implementing regulation at Ch. 173-303 Washington Administrative Code. (A state program, commonly referred to as the State Dangerous Waste Program, which regulates the generation, treatment, storage and/or disposal of hazardous wastes in cooperation with RCRA).

Imminent and Substantial Endangerment:

A situation in which the lead regulatory agency and DOE immediately respond to a release of a hazardous substance or hazardous waste in order to abate the danger or threat to public health or welfare or the environment. Such action may be taken under CERCLA, RCRA, or HWMA authority, as appropriate.

In-Situ Vitrification (ISV):

A process by which electrical current is passed through contaminated soils in-place heating the soil to a molten state. While cooling the soils become a homogenous glass-like block thereby minimizing the leachability of contaminants.

Interagency Management Integration Team (IAMIT):

A committee of the Executive Managers from each agency with the functions of negotiation of new milestones, adjustment of scope and schedule of existing interim milestones, and Tri-Party Agreement Issue Resolution/Dispute Resolution. The IAMIT also serves as the interface with the Hanford Advisory Board (HAB).

Interim Isolation (as pertains to Single-Shell Tanks):

Disconnecting and blanking or capping pipelines from SST systems and installing barriers to avoid inadvertent liquid addition.

Interim Measure (IM):

An expedited response action taken under RCRA authority to mitigate a hazardous waste release or to reduce the potential for a future release from a unit. (see Section 7.2.4)

Interim Response Action (IRA):

An expedited response action taken under CERCLA authority to mitigate a hazardous substance release or to reduce the potential for a future release from a unit. (see Section 7.2.4)
Referred to as a removal action in the NCP.

Interim Safe Storage (ISS) of the Reactors:

Interim Safe Storage (ISS) is the first stage of final disposition. It consists of (i) ensuring that facility hazardous substances are and will remain safe and secure, and (ii) reducing the footprint of the reactor building to the primary shield wall, and sealing all openings such that the facility is in an environmentally safe and secure condition prior to initiation of disposition phase II. During reactor ISS all ancillary structures surrounding the shield wall will be removed. Resulting wastes will be disposed at Hanford's Environmental Restoration Disposal Facility (ERDF), or other disposal facility as may be approved by the parties. On completion of ISS, surveillance and maintenance systems will be upgraded as appropriate to provide for remote monitoring of the remaining structure prior to disposition phase II.

Interim Stabilization (as pertains to Single-Shell Tanks):

Is the removal of pumpable supernatant and interstitial liquid from SST systems into DST systems. As much liquid as practicable will be removed. Supernatant is free standing liquid. Interstitial liquid is that liquid in the waste matrix contained within the pore spaces of the salts and sludges, some of which is capable of gravity drainage while the rest is held by capillary forces.

Interim Status:

A RCRA provision which grants a facility the right to continue to operate (treat, store, or dispose of hazardous waste) in accordance with applicable RCRA or state regulations until a RCRA permit is issued.

Land Disposal Restriction Waste (LDR):

RCRA hazardous wastes, subject to Section 3004(d) through (m) of RCRA and 40 CFR 268.

Lead Regulatory Agency:

The agency (EPA or Ecology) which is assigned regulatory oversight responsibility with respect to actions under this Agreement regarding a particular Operable Unit, TSD group/unit or milestone pursuant to Section 5.6 of the Action Plan. The designation of a Lead Regulatory Agency shall not change the jurisdictional authorities of the Parties.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP):

The title of the federal regulations (40 CFR Part 300) promulgated under the authority of CERCLA.

National Priorities List (NPL):

EPA's list of priority waste sites containing hazardous substances that will be investigated and cleaned up under the Superfund program.

Notice of Deficiency (NOD):

A RCRA administrative action in which the lead regulatory agency defines specific deficiencies or omissions in RCRA primary documents. (see Section 9.2)

Operable Unit:

A discrete portion of the Hanford Site, as identified in Section 3.3 of the Action Plan. An operable unit at Hanford is a group of land disposal sites placed together for the purposes of doing a Remedial Investigation/ Feasibility Study (RI/FS) and subsequent cleanup actions. The primary criteria for placement of a site into an operable unit includes geographic proximity, similarity of waste characteristics and site type, and the possibility for economies of scale.

Parties:

The U.S. Environmental Protection Agency, the State of Washington Department of Ecology, and the U.S. Department of Energy, all of which are signing the Agreement and Action Plan.

Plutonium Uranium Extraction (PUREX):

Latest in a line of separation technologies, preceded by bismuth phosphate and REDOX.

Post-Closure:

The period of care, including maintenance, monitoring, and reporting, that is undertaken at a facility or unit (e. g. landfill or impoundment closed as disposal facilities or units) after closure

to ensure continued environmental safety. Post closure care must satisfy applicable requirements of 40 CFR Part 264, subpart G, and of WAC 173-303-610.

Preliminary Assessment and Site Inspection (PA/SI):

Normally the first step in analyzing the nature and severity of contamination at a potential CERCLA site and is used to determine if a site should be nominated for the NPL. Based upon extensive documentation previously submitted to EPA by DOE, this requirement is considered to have been satisfied for the Hanford Site.

Primary Documents:

Documents which contain information, documentation, data, and proposals upon which key decisions will be made with respect to the remedial action or permitting process. Primary documents are subject to dispute resolution and are part of the administrative record. (see Section 9.2)

Project Manager:

The individual responsible for implementing the terms and conditions of the Agreement at the specific operable unit level on behalf of his/her respective Party. The project manager has direct responsibility for completion of targets and milestones and has authority to agree to modifications of scope and schedule, in accordance with Section 12.0 of the Action Plan.

Quality Assurance (QA):

The systematic actions necessary to provide adequate confidence that a material, component, system, process, or facility performs satisfactorily, or as planned in service.

Quality Control (QC):

The quality assurance actions that control the attributes of a material, process, component, system, or facility in accordance with predetermined quality requirements.

Radioactive Mixed Waste:

Also called "mixed waste", wastes that contain both hazardous waste subject to RCRA, as amended, and radioactive waste subject to the Atomic Energy Act of 1954, as amended. Mixed waste is regulated under the State Dangerous Waste Program.

Radioactive Waste:

A solid, liquid, or gaseous material of negligible economic value that contains radionuclides in excess of threshold quantities except for radioactive material from post-weapons-test activities.

Record of Decision (ROD):

The CERCLA document used to select the method of remedial action to be implemented at a site after the Feasibility Study/Proposed Plan process has been completed. (see Section 7.3)

Remedial Action:

An action taken under CERCLA authority to permanently resolve a hazardous substance release or to significantly reduce the potential for a release from a unit or group of units.

Remedial Action (RA) Phase:

The CERCLA process of remedial action implementation after the investigative steps have been completed and after issuance of the Record of Decision and after Remedial Design has

been completed. (see Section 7.3)

Remedial Design (RD):

The CERCLA process of design for the remedial action alternative that was selected in the Record of Decision. (see Section 7.3)

Remedial Investigation (RI):

The CERCLA process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations. The RI is done in conjunction with the Feasibility Study. (see Section 7.3)

Resource Conservation and Recovery Act (RCRA):

42 U.S.C. Sec. 6901 et seq., as amended. For purposes of this Agreement, "RCRA" also includes the HWMA Ch. 70.105 RCW. (A federal law enacted in 1976 that regulates the generation, transportation, treatment, storage, and disposal of hazardous wastes).

Response Action:

The CERCLA processes of interim response and remedial actions. See definitions for Interim Response Action and Remedial Action.

Responsiveness Summary:

A summary of oral and/or written public comments received during a comment period on key documents, and agency responses to those comments. The responsiveness summary is especially valuable during the decision process at a site, because it highlights community concerns about the proposed decision.

RCRA Facility Assessment (RFA):

The initial RCRA process to determine whether corrective action for a RCRA past practice unit is warranted, or to define what additional data must be gathered to make this determination; analogous to a CERCLA Preliminary Assessment and Site Inspection (see Section 7.4)

RCRA Facility Investigation (RFI):

The RCRA process of determining the extent of hazardous waste contamination; analogous to the CERCLA Remedial Investigation. (see Section 7.4)

RCRA Past Practice (RPP):

A process by which a past practice unit containing hazardous wastes or hazardous constituents will be addressed for corrective action, regardless of the date waste was received or discharged at a unit. (see Section 7.4)

RCRA Permit:

A permit under RCRA and/or HWMA for treatment, storage or disposal of hazardous waste.

Revised Code of Washington (RCW):

The Washington State statutes.

Risk Assessment:

An analysis of the potential adverse effects to human health and/or the environment (current or future) caused by radionuclide and/or hazardous substance releases from a site in the absence

of any actions to control or mitigate these releases.

S&M Surplus Facilities:

Facilities on the Hanford Site transferred from DOE Operations to the surveillance and maintenance phase under the responsibility of EM (Office of Environmental Restoration) prior to the establishment of the EM (Office of Facility Transition). The facility decommissioning process for these special case facilities will be completed entirely under the disposition phase funded on a DOE-HQ priority basis by EM (Office of Environmental Restoration).

Secondary Document:

As distinguished from Primary Document, it is considered to be a supporting document providing information or data and does not, in itself, reflect key decisions. A secondary document is subject to review by the regulatory agencies and is part of the administrative record. It is not subject to dispute resolution. (see Section 9.2)

Shutdown Decision:

A formal DOE-HQ documented determination that a facility is surplus (see surplus facility).

Signatories:

The Signatories are: For the DOE, the signatory shall be the Manager, Richland Operations Office. For the EPA, the Signatory shall be the Regional Administrator for Region X. For the State of Washington Department of Ecology, the signatory shall be the Director.

Single-Shell Tank (SST):

At Hanford, 149 single-shell carbon steel tanks (ranging in size from 55,000 to 1 million gallons) that have been used to store high-level radioactive wastes.

Skyshine:

Gamma radiation emitted from a source that is reflected off particles in the air, sometimes landing several hundred meters from their point of origin.

Stabilization:

The combination of steps or activities to secure, convert and/or confine radioactive and/or hazardous material within enclosures, exhaust ducts, and process equipment within a facility. These activities may include; removal of loose equipment items, draining process fluids to the maximum extent practicable, coating internal surfaces with a fixative coating, removal of waste materials, installing seals and blank flanges, termination of nonessential energy sources, and/or conversion of reactive residues to a stable form suitable for extended safe storage. (Note: Stabilization activities are usually performed during the facility transition phase, but may be performed before the transition phase as a best management practice for cost efficiency, as low as reasonably achievable [ALARA], and/or safety purposes.)

State of Washington Department of Ecology (Ecology):

The State of Washington Department of Ecology, its employees and Authorized Representatives.

State-only Wastes:

Any liquid, solid, gas or sludge, regardless of quantity that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-070 through 103.

Superfund Amendments and Reauthorization Act of 1986 (SARA):

The reauthorization of the CERCLA statute, enacted by Congress in December 1986.

Support Agency:

The regulatory agency (EPA or Ecology) which is not designated as the lead regulatory agency at an operable unit. The support agency will provide assistance to the lead regulatory agency, as needed.

Surplus Facility:

Any facility or site (including equipment) that has no identified programmatic use by the operating phase Program Secretarial Officer.

Surveillance and Maintenance:

Activities conducted to assure that a site or facility remains in a physically safe and environmentally secure condition, and includes periodic inspections and monitoring of the property, appropriate contamination control actions, and required maintenance of barriers controlling access. (Note: This process continues as a best management practice through the facility disposition phase until final disposition is achieved as defined in Section 8.0 of this Action Plan.)

Tank Waste Task Force:

A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups focused on Hanford, labor, and public health. The task force was charged with providing values relative to the Tank Waste Remediation System and with principles for the overall Tri-Party Agreement package during the renegotiations of the Tri-Party Agreement, Summer 1993.

Technical Assistance Grant (TAG):

A grant available from EPA designed to enhance public participation as described in Section 117 of CERCLA. A maximum of \$50,000 per NPL site is available. Grant money must be used for the purpose of interpreting information regarding CERCLA activity at the site.

Treatment, Storage, or Disposal (TSD):

A RCRA term referring to the treatment, storage, or disposal of hazardous waste. Under RCRA, TSD activity can occur only at units which received or stored hazardous waste after November 19, 1980, the effective date of the RCRA regulations.

Treatment, Storage, or Disposal (TSD) Group:

A grouping of TSD units for the purpose of preparing and submitting a permit application and/or closure plan pursuant to the requirements under RCRA, as determined in the Action Plan.

Treatment, Storage, or Disposal (TSD) Unit:

A unit used for treatment, storage, or disposal of hazardous waste and is required to be permitted and/or closed pursuant to RCRA requirements as determined in this Action Plan.

United States Department of Energy (DOE):

The United States Department of Energy, its employees and Authorized Representatives.

United States Environmental Protection Agency (EPA):

The United States Environmental Protection Agency, its employees and Authorized Representatives.

Unplanned Release:

An unintentional release, including a spill, of hazardous waste or hazardous substance into the environment.

Vadose Zone:

The unsaturated region of soil between the ground surface and the water table.

Validated Data:

Data that DOE has determined meets criteria contained in the "Data Validation Guidelines for Contract Laboratory Program Organic Analyses" and "Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses" that are contained in the Sample Management Administrative Manual.

Verified Data:

Data that has been checked for accuracy and consistency by DOE following a transfer action (e.g., from manual log to computer or from distributed data base to centralized data repository).

Vitrification:

[see Hanford Waste Vitrification Plant (HWVP) or In-Situ Vitrification.]

Washington Administrative Code (WAC):

The Washington State regulations.

Waste Information Data System (WIDS):

A database which identifies all waste management units on the Hanford Site. It describes the current status of each unit, along with descriptive information. (see Section 3.5)

Definition of Other Technical Terms

Note: These terms are not considered part of the Action Plan, but are provided to the reader for informational purposes only.

Absorption:

The process by which radiation imparts some or all of its energy to any material through which it passes; the taking up of a substance by another substance.

Alpha-Emitter:

A radioactive substance, such as plutonium, that emits alpha particles. Alpha radiation is much less penetrating than gamma or beta radiation, but is much more ionizing, and therefore potentially extremely toxic.

Aquifer:

A geologic formation, group of formations, or part of a formation capable of yielding significant quantities of groundwater to wells, springs, or other points of discharge.

Aquifer System:

A logical grouping of aquifers in a region, grouped on the basis of characteristics such as superficial geology, water quality, and vulnerability.

Annulus:

Also called "annular space", this is the space between the outer and inner casing of a well, or the space between the wall of the drilled hole and the casing.

As Low As Reasonably Achievable (ALARA):

A radiation protection principle applied to radiation exposure, with costs and benefits taken into account.

Background Water Quality:

The natural levels of chemical, physical, biological, and radiological constituents or parameters upgradient of a unit, practice, or activity that have not been affected by that unit, practice, or activity.

Barrier:

A manmade addition to a disposal site that is designed to retard or preclude contaminant transport and/or to preserve the integrity of the disposal site.

Basalt:

A dark, fine-grained, extrusive igneous rock.

Basalt Waste Isolation Project (BWIP):

Program to study Hanford as a possible location for the high-level nuclear waste repository.

Beneficial Uses:

Uses of waters of the state that include but are not limited to use for domestic water, irrigation, agriculture, fish, shellfish, recreation, industrial water, and generation of electric power.

Beta Radiation:

Essentially weightless charged particles (electrons or positrons) emitted from the nucleus of atoms undergoing nuclear transformation.

Bottoms (tank bottoms):

The concentrated material remaining in the waste tanks after most of the contents have been pumped out for solidification or transfer to other storage tanks; refers also to specific tanks used to collect such bottoms waste from several other tanks.

Byproduct Material:

Waste produced by extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface waste resulting from uranium solution extraction processes; excludes fission products and other radioactive material

covered in 10 CFR Part 20.3(3).

Cold Standby:

A condition whereby a reactor is defueled and maintained in a state that will allow the reactor to be restarted, if necessary.

Criteria:

Numerical or narrative values which represent the maximum level a contaminant must not exceed to maintain a given beneficial use.

Curie (Ci):

The basic unit used to describe the intensity of radioactivity. A curie is equal disintegrations to 37 billion per second.

Defense Waste:

Radioactive waste from any activity performed in whole or in part in support of DOE atomic energy defense activities; term excludes waste under purview of the Nuclear Regulatory Commission or generated by the commercial nuclear power industry.

Ditch:

An unlined conveyance for transport of liquid wastes to a pond or trench structure designed for percolation.

Drywell:

A drainage receptacle constructed by digging a hole and refilling with coarse gravel; also a watertight well casing used for inserting monitoring equipment.

Enforcement Standard:

The value assigned to any contaminant for the purposes of regulating that contaminant.

Ethylene Glycol:

An organic compound used primarily as an anti-freeze. Ethylene glycol is moderately toxic when ingested.

Evapotranspiration:

The combined loss of water from soil by evaporation and from the surfaces of plant structures.

Half-life:

The time required for a radionuclide's activity to decay to half its value, used as a measure of the persistence of radioactive materials; each radionuclide has a characteristic constant half-life.

Halogenated Hydrocarbons:

Organic compounds containing atoms such as chlorine, fluorine, iodine, or bromine.

Hydraulic Continuity:

A term used to describe the relationship between groundwater and surface water, wherein they are often connected, allowing flow in either or both directions.

Iodine:

A gaseous inorganic chemical produced in the plutonium production reactors at Hanford. Radioactive isotopes of iodine are found in most radioactive waste streams at Hanford.

Ion Exchange:

Process for selectively removing a hazardous constituent from a waste stream by reversibly transferring ions between an insoluble solid and the waste stream; the exchange medium (usually from a column of resin) can then be washed to collect the waste or taken directly to disposal. Both the residue and liquid stream from this process may still be a hazardous waste.

Isotope:

Any of two or more forms of a chemical with the same atomic number and nearly identical chemical behavior but different atomic mass and physical (e.g. radioactive) properties.

Jet Pumping:

A technique for removing interstitial liquor from single-shell tanks.

Leachate:

The product obtained from the passage of water through landfills or storage piles.

Lead:

A heavy metal used for shielding material in nuclear reactors. Lead can be toxic when ingested or inhaled. Lead can impair nervous system development in children and can cause nervous system damage in adults. Lead is also a reproductive toxin.

Level of Detection:

The level at which a constituent can be detected by a department approved method of analysis.

Liquid Waste Disposal Site:

Units used for discharge of contaminated liquids to the ground.

Low-Level Waste (LLW):

Typically contains small amounts of radioactivity in large volumes, and most can be handled without protective shielding. Solid low-level waste consists of trash such as clothing, tools, and glassware. Liquid waste consists primarily of water circulated as cooling water.

Lysimeter:

An instrument for measuring the water percolating through soils and determining the materials dissolved by the water.

Maximum Contaminant Level (MCL):

The maximum level of a contaminant in water that can exist without harming the beneficial use of drinking water. Defined specifically in the Safe Drinking Water Act.

N-Reactor:

N-Reactor is a dual purpose reactor, generating electricity from its steam by-product in addition to producing plutonium. It is the only plutonium production reactor at Hanford that has operated since 1971. It is currently in standby status.

National Pollutant Discharge Elimination System (NPDES):

Grants authority to EPA and authorized states to issue permits for discharge of wastewaters into certain surface water bodies within prescribed limits for constituents, concentrations and volumes.

Percolation:

Gravity flow of water through pore spaces in rock or soil.

pH:

A measure of acidity and alkalinity.

Plume:

A defined area of groundwater contamination.

Plutonium:

A radioactive element used as the primary fuel in nuclear weapons. Plutonium is purified during various production operations at Hanford.

Point of Compliance:

A RCRA term, the point at which the groundwater protection standard applies and where monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

Ponds:

Surface impoundments used to contain low-level liquid radioactive wastes, mixed wastes, or hazardous wastes.

Receptor:

Any living entity potentially affected by release of substances to the environment from Hanford operations.

Recharge:

The net process of groundwater replenishment by infiltration of surface water through the soil column. Sources of recharge include precipitation and surface runoff from natural and man-made water courses and impoundments.

Reduction/Oxidation (REDOX):

A facility and/or processes for separating plutonium from irradiated reactor fuels by using successive steps of chemical reduction/oxidation together with solvent extraction.

Reverse Well:

Liquid waste disposal structure consisting of a well (sometimes drilled into the water table) into which waste solutions were pumped.

Salt Cake:

Crystallized nitrate and other salts deposited in waste tanks, usually after active measures are taken to remove moisture.

Sanitary Landfill:

A burial operation for disposing of nonradioactive, nonhazardous waste or garbage.

Saturated Zone:

The subsurface zone in which all interconnected voids or pores are filled with water.

Seepage Pond:

An artificial body of surface water formed by discharge from Hanford process operations.

Solid Waste (radioactive):

Either solid radioactive material or solid objects that contain radioactive material or bear radioactive surface contamination.

Stabilization:

Treatment of waste or a waste site to protect the environment from contamination.

State Waste Discharge Permit:

A permit issued pursuant to Chapter 173-216 WAC.

Strontium 90:

A highly radioactive isotope common in most radioactive waste streams at Hanford.

Sulfuric Acid:

A highly corrosive inorganic acid used in various production processes at Hanford.

Surplus Facility:

Any facility or site (including equipment) that has no identified programmatic use and may or may not be radioactively contaminated to levels that require controlled access.

Synthetic Organic:

Man-made chemical compounds that contain carbon and may be highly persistent in the environment.

Tank Farm:

An installation of multiple adjacent tanks, usually interconnected, for storage of liquid waste, or substances used in Hanford operations. Major tank farms at Hanford are underground.

Transuranic (TRU) Waste:

Waste contaminated with long-lived transuranic elements in concentrations within a specified range established by DOE, EPA, and the Nuclear Regulatory Commission (NRC). These are elements shown above uranium on the chemistry periodic table, such as plutonium, americium, and neptunium.

Trend Analysis:

A statistical methodology used to detect net changes or trends in contaminant levels over time.

Tritium:

A radioactive isotope of hydrogen used in nuclear weapons to increase the efficiency of the

nuclear reaction.

Tunnel:

A large underground storage structure for large pieces of equipment, often on railroad cars; PUREX storage tunnels.

Unconfined Aquifer:

An aquifer overlain with permeable material and sensitive to contamination; also, an aquifer that has a water table or surface at atmospheric pressure.

Vault:

A RCRA approved, subsurface structure designed for permanent disposal of low-level mixed wastes in grout.

Washington Guidance Level (WGL):

An interim health level for a contaminant which does not have an established criterion but which may create a public health hazard. A WGL is based on less stringent development processes than a criterion and is meant to act as an enforcement guide until a criterion is established. WGL will be based on the most current available data which may include, but not be limited to: (a) USEPA Maximum Contaminant Level Goals, (b) USEPA Priority Pollutant Values, (c) USEPA Ambient Water Quality Criteria, (d) USEPA Health Advisories, (e) Other States criteria or Guidance Levels, and (f) Department of Social and Health Services Health Risk Assessments.

Water Table:

The upper boundary of an unconfined aquifer surface below which soil saturated with groundwater occurs; defined by the levels at which water stands in wells that barely penetrate the aquifer.

200 Areas Plateau:

The highest portion (aside from Rattlesnake and Gable Mountains) on the Hanford Site, containing most of the waste processing and storage facilities.

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APPENDIX 2 ACTION PLAN

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units.

Treatment, Storage, and Disposal			Planned Act	
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operati
D-1-1	100-D Ponds (120-D-1)	100-DR-1	X	
T-1-1	105-DR (122-DR-1) Sodium Fire Facility		X	
D-1-2	1301-N/1325-N Liquid Waste Disposal Facilities	100-NR-1	X	
	116-N-1 Crib			
	116-N-3 Crib			
T-1-2	1324-N/1324-NA Liquid Waste Facilities	100-NR-1	X	
	120-N-1 Pond			
	120-N-2 Neutralization Unit			
T-1-3**	1706-KE Treatment Facility (116-KE6 A-D):		X	
	1706-KE Waste Accumulation Tank			
	1706-KE Ion Exchange Column			
	1706-KE Solidification Unit (Evaporator)			
	1706-KE Condensate Tank			
T-1-4	183-H Solar Evaporation Basins (116-H-6)	100-HR-1	X	
S-2-8	200 East Area Liquid Effluent Retention Facility (LERF)			St
T-2-1	200-E8 Borrow Pit Demolition Site		X	
T-2-2	200-W Ashpit Demolition Site		X	
T-2-3***	204-AR Waste Unloading Station			Tre
S-2-7	207-A South Retention Basin	200-PO-5	X	

D-2-1	2101-M Pond		X	
D-2-2	216-A-10 Crib	200-PO-2	X	
D-2-3	216-A-29 Ditch	200-BP-11	X	
D-2-4	216-A-36B Crib	200-PO-2	X	
D-2-10	216-A-37-1 Crib	200-PO-4	X	
D-2-5	216-B-3 Pond System:	200-BP-11	X	
	216-B-3 Pond			
	216-B-3A Pond			
	216-B-3B Pond			
	216-B-3C Pond			
	216-B-3-3 Ditch			
S-2-3	Double-Shell Tanks			St
	241-AN Farm (7 tanks)			
	241-AP Farm (8 tanks)			
	241-AW Farm (6 tanks)			
	241-AY Farm (2 tanks/2 diversion boxes)			
	241-AZ Farm (2 tanks)			
	241-SY Farm (3 tanks)			
	241-EW-151 Vent Station Catch Tank			
	244-AR Vault			
	244-CR Vault			
	244-TX Receiver Tank			
	244-BX Receiver Tank			
	244-U Receiver Tank			
	244-S Receiver Tank			
	244-A Receiver Tank			
S-2-9	241-CX-70 Tank	200-SO-1	X	
D-2-6	216-B-63 Trench	200-BP-11	X	
D-2-7	216-S-10 Pond and Ditch	200-RO-1	X	
	216-S-10D Ditch			
	216-S-10P Pond			
D-2-8	216-U-12 Crib	200-UP-2	X	
D-2-9	Low-Level Burial Grounds			
	218-E-10			La
	218-E-12B			La
	218-W-3A			La
	218-W-3AE			La
	218-W-4B			La
	218-W-4C			La
	218-W-5			La
	218-W-6			La
S-2-1	Purex Tunnels 1 and 2			St
	218-E-14			
	218-E-15			
T-2-4**	221-T Containment System Test Facility		X	

TS-2-1	222-S Laboratories Treatment Tanks and Storage Building		
	222-S Storage Pad		
	*** 219-S Hot Waste Facility Tank 102		St
	*** 219-S Hot Waste Facility Tank 103		Tre
S-2-2	224-T Transuranic Storage and Assay Facility (TRUSAF)		Tre
S-2-4	Single-Shell Tanks	X	St
	241-A Farm (6 tanks/2 diversion boxes)	200-PO-3	
	241-AX Farm (4 tanks/1 diversion box)		
	241-B Farm (16 tanks/5 diversion boxes)	200-PO-3	
	241-BX Farm (12 tanks/6 diversion boxes)		
	241-BY Farm (12 tanks/3 diversion boxes)	200-BP-7	
	241-C Farm (16 tanks/6 diversion boxes)		
	241-S Farm (12 tanks/2 diversion boxes)	200-BP-7	
	241-SX Farm (15 tanks/2 diversion boxes)		
	241-T Farm (16 tanks/6 diversion boxes)	200-BP-7	
	241-TX Farm (18 tanks/4 diversion boxes)		
	241-TY Farm (6 tanks/1 diversion boxes)	200-PO-3	
	241-U Farm (16 tanks/8 diversion boxes)		
		200-RO-4	
		200-RO-4	
		200-TP-6	
		200-TP-5	
		200-TP-5	
		200-UP-3	
	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>

S-2-4 Single Shell Tanks (Continued)

200-BP-7	241-B Tank Farm (16 Units)	Single-Shell Tank
	241-B-151	Diversion Box
	241-B-152	Diversion Box
	241-B-153	Diversion Box
	241-B-252	Diversion Box
	241-B-301B	Catch Tank
	241-BR-152	Diversion Box
	241-BX Tank Farm (12 Units)	Single-Shell Tank
	241-BX-153	Diversion Box
	241-BX-302A	Catch Tank
	241-BXR-151	Diversion Box

200-PO-3	241-BXR-152	Diversion Box
	241-BXR-153	Diversion Box
	241-BY Tank Farm (12 Units)	Single-Shell Tank
	241-BYR-152	Diversion Box
	241-BYR-153	Diversion Box
	241-BYR-154	Diversion Box
	242-B-151	Diversion Box
	244-BXR	Receiving Vault
	2607-EB	Septic Tank
	UN-200-E-43	Unplanned Release
	UN-200-E-76	Unplanned Release
	UN-200-E-79	Unplanned Release
	UN-200-E-101	Unplanned Release
	UN-200-E-105	Unplanned Release
	UN-200-E-109	Unplanned Release
	216-A-39	Crib
	216-C-8	French Drain
	241-A Tank Farm (6 Units)	Single-Shell Tank
	241-A-152	Diversion Box
	241-A-153	Diversion Box
	241-A-153	Catch Tank
	241-A-350	Catch Tank
	241-A-417	Diversion Box
	241-A-A	Diversion Box
	241-A-B	Diversion Box
	241-AR-151	Single-Shell Tank
	241-AX Tank Farm (4 Units)	Diversion Box
	241-AX-151	Catch Tank
	241-AX-152-CT	Diversion Box
	241-AX-152-DS	Valve Pit
	241-AX-155	Diversion Box
	241-AX-501	Diversion Box
	241-AX-A	
	241-AX-B	
	241-C-151	Diversion Box
	241-C-152	Diversion Box
	241-C-153	Diversion Box
	241-C-252	Diversion Box
	241-C-301C	Catch Tank
	241-CR-151	Diversion Box
	241-CR-152	Diversion Box
	241-CR-153	Diversion Box
	241-ER-153	Diversion Box
	2607-ED	Septic Tank
	2607-EG	Septic Tank
	2607-EJ	Septic Tank
	UN-200-E-16	Unplanned Release
	UN-200-E-18	Unplanned Release
	UN-200-E-27	Unplanned Release
	UN-200-E-47	Unplanned Release
	UN-200-E-48	Unplanned Release
	UN-200-E-68	Unplanned Release
	UN-200-E-72	Unplanned Release
	UN-200-E-81	Unplanned Release
	UN-200-E-82	Unplanned Release
	UN-200-E-86	Unplanned Release
	UN-200-E-91	Unplanned Release

200-RO-4	UN-200-E-94	Unplanned Release
	UN-200-E-99	Unplanned Release
	UN-200-E-100	Unplanned Release
	UN-200-E-107	Unplanned Release
	UN-200-E-118	Unplanned Release
	241-S Tank Farm (12 Units)	Single-Shell Tank
	241-S-152	Diversion Box
	241-S-302B	Catch Tank
	241-S-A	Valve Pit
	241-S-B	Valve Pit
200-TP-5	241-S-C	Valve Pit
	241-S-D	Valve Pit
	241-SX Tank Farm (15 Units)	Single-Shell Tank
	241-SX-151	Diversion Box
	241-SX-152	Diversion Box
	UN-200-W-10	Unplanned Release
	UN-200-W-80	Unplanned Release
	UN-200-W-81	Unplanned Release
	241-TX Tank Farm (18 Units)	Single-Shell Tank
	241-TX-153	Diversion Box
200-TP-6	241-TX-302A	Catch Tank
	241-TX-302-XB	Catch Tank
	241-TXR	Vault
	241-TXR-152	Diversion Box
	241-TXR-153	Diversion Box
	241-TY Tank Farm (6 Units)	Single-Shell Tank
	241-TY-153	Diversion Box
	241-TY-302A	Catch Tank
	241-TY-302B	Catch Tank
	242-T-151	Diversion Box
	244-TXR	Vault
	2607-WT	Septic Tank
	2607-WTX	Septic Tank
	UN-200-W-17	Unplanned Release
	UN-200-W-76	Unplanned Release
	UN-200-W-100	Unplanned Release
	241-T Tank Farm (16 Units)	Single-Shell Tank
	241-T-151	Diversion Box
	241-T-152	Diversion Box
	241-T-153	Diversion Box
	241-T-252	Diversion Box
	241-T-301	Catch Tank
	241-T-302	Catch Tank
	241-TR-152	Diversion Box
	241-TR-153	Diversion Box
	UN-200-W-62	Unplanned Release
	UN-200-W-64	Unplanned Release
	UN-200-W-97	Unplanned Release

200-UP-3	241-U Tank Farm	Single-Shell Tank
	(16 Units)	
	241-U-151	Diversion Box
	241-U-152	Diversion Box
	241-U-153	Diversion Box
	241-U-252	Diversion Box
	241-U-301	Catch Tank
	241-U-A	Diversion Box
	241-U-B	Diversion Box
	241-U-C	Diversion Box
	241-U-D	Diversion Box
	241-UR-151	Diversion Box
	241-UR-152	Diversion Box
	241-UR-153	Diversion Box
	241-UR-154	Diversion Box
	244-UR	Receiving Vault
	2607-WUT	Septic Tank
	UN-200-W-6	Unplanned Release
	UN-200-W-71	Unplanned Release

Treatment, Storage, and Disposal			Planned Action	
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating
T-2-5***	241-Z Treatment Tank (D-5)			Treatm
T-2-6	242-A Evaporator			Treatm
S-2-5	2727-S Nonradioactive Dangerous Waste Storage Facility		X	
TS-2-2	Hexone Storage and Treatment		X	
	276-S-141 Tank			
	276-S-142 Tank			
	Railcar Storage Tanks (Future)			
	Distillation System (Future)			
	Incinerator (Future)			
T-3-1	300 Area Solvent Evaporator		X	
TS-3-1	300 Area Waste Acid System		X	
	313 Building Waste Acid Neutralization Tank			
	313 Building Centrifuge			
	313 Filter Press			
	333 Building Chromium Treatment Tanks (2 tanks)			
	***311 Neutralized Waste Tanks (2 tanks)			
	334-A Waste Acid Storage Tank (2 tanks)			
S-3-1	303-K Contaminated Waste Storage Facility		X	
T-3-2	303-M Uranium Oxide Facility	300-FF-2	X	
TS-3-2	304 Concretion Facility and Storage Area		X	
	304 Concretion Facility			
	304 Storage Area			
S-3-2	305-B Storage Facility			Storag

D-3-1	300 Area Process Trenches (316-5)	300-FF-1	X	
T-3-3**	324 Sodium Removal Pilot Plant			Treatm
T-3-4	325 Waste Treatment Facility			Treatm
TS-3-3	3718-F Alkali Metal Treatment and Storage Facility		X	
	3718-F Burn Shed			
	3718-F Treatment Tank #1			
	3718-F Treatment Tank #2			
	3718-F Alkali Metal Treatment Facility Storage			
T-4-1	400 Area Maintenance and Storage Facility (MASF)			Treatm
S-4-1	4843 FFTF Sodium Storage Facility		X	
D-6-1	600 Area Nonradioactive Dangerous Waste Landfill	200-IU-3	X	
S-6-1	616 Nonradioactive Dangerous Waste StorageFacility			Storag
TS-2-3	B Plant			Treatm
				Treatm
	B Plant Waste Concentrator			Treatm
	B Plant Settle and Decant Tank			Storag
	B Plant Filter			
	B Plant Radioactive Organic Waste Solvent Tank #1			
	B Plant Radioactive Organic Waste Solvent Tank #2			Storag
	B Plant Radioactive Organic Waste Solvent Tank #3			Storag
	B Plant Radioactive Organic Waste Solvent Tank #4			Storag
	B Plant Radioactive Organic Waste Solvent Tank #5			Storag
	B Plant Radioactive Organic Waste Solvent Tank #6			Storag
	B Plant Radioactive Organic Waste Solvent Tank #7			Storag
	B Plant Storage Area			Storag
	B Plant Waste Pile			Storag
T-X-1	Biological Treatment Test Facilities			Treatm
TD-2-1	Grout			
	Grout Treatment Facility			Treatm
	Grout Treatment Facility Landfill			Treatment/I
TS-2-4	Hanford Central Waste Complex			
	Waste Receiving and Processing (WRAP) Facility (Future)			Treatm
	Radioactive Mixed Waste Storage Facility			Storag
TS-2-5	Hanford Waste Vitrification Plant (HWVP) (Future)			Treatment/S
T-X-2	Physical and Chemical Treatment Test Facilities		X	

TS-2-6	Purex		
	*** Neutralization Tank E-5		Treatm
	*** E-F11 Concentrator		Treatm
	*** Neutralization Tank G-7		Treatm
	Ammonia Distillate Treatment System (Future Tank)		Treatm
	*** Neutralization Tank F-18		
	*** Neutralization Tank F-15		Treatm
	*** Neutralization Tank F-16		Treatm
	*** Neutralization Tank U3		Treatm
	*** Neutralization Tank U4		Treatm
	Purex Waste Piles		Storag
TS-3-4	Simulated High-Level Waste Slurry Treatment and Storage	X (or)	Treatment/S
T-2-7***	T Plant Treatment Tank		Treatm
T-X-3	Thermal Treatment Test Facilities	X	
T-11-1	1100 Area Hanford Patrol Academy Demolition Area	X	

*Post-Closure Permit required if closed as a land disposal unit in accordance with Subsection 6.3.2.

**Part A permit application may be withdrawn because unit(s) never handled or never will handle hazardous waste.

***Part A permit application may be withdrawn due to reclassification of unit(s) as treatment by generator.


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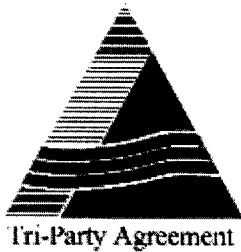
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APPENDIX 2 ACTION PLAN

APPENDIX C

Prioritized Listing of Operable Units.

<u>Priority</u>	<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Lead Regulatory Agency</u>	<u>Unit Category</u>
1	1100-EM-1	1100-1	Acid Pit	EPA	CPP
		1100-2	Solvent Pit		CPP
		1100-3	Antifreeze Pit		CPP
		Horn Rapids Disposal	Landfill		CPP
		1100-4	Antifreeze Tank		CPP
		UN-1100-5	Unplanned Release		CPP
		UN-1100-6	Unplanned Release		CPP
2	300-FF-1 (GW addressed by 300-FF-5)	300 Ash Pits	Pit	EPA	CPP
		300 Filter Backwash Pond	Pond		CPP
		300 Retired Filter Backwash	Pond		CPP
		300 Area Sanitary Sewer System	Sewer		CPP
		316-1	Pond		CPP
		316-2	Pond		CPP

		316-5 (300 Area Process Trenches)	Trench		TSD (D-3-1)
		618-12	Burial Ground		CPP
		618-4	Burial Ground		CPP
		628-4	Burn Pit		CPP
		UN-300-FF-1	Unplanned Release		CPP
2A	300-FF-5 (GW O.U.)	300-FF-1	Source O.U.	EPA	CPP
		300-FF-2	Source O.U.		CPP
3	200-BP-1 (Source O.U.)	216-B-43	Crib	EPA	CPP
		216-B-44	Crib		CPP
		216-B-45	Crib		CPP
		216-B-46	Crib		CPP
		216-B-47	Crib		CPP
		216-B-48	Crib		CPP
		216-B-49	Crib		CPP
		216-B-50	Crib		CPP
		216-B-57	Crib		CPP
		216-B-61	Crib		CPP
		UN-200-E-89	Unplanned Release		RPP
		UN-200-E-110	Unplanned Release		CPP
		UN-200-E-63	Unplanned Release		CPP
		UN-200-E-9	Unplanned Release		CPP
4	100-HR-1(GW addressed by 100-HR-3)	116-H-1	Trench	Ecology	CPP
		116-H-2	Trench		CPP
		116-H-3	French Drain		CPP
		116-H-4	Crib		CPP
		116-H-5	Outfall Structure		CPP
		116-H-6 (183-H)	Retention Basin		TSD (T-1-4)
		116-H-7	Retention Basin		CPP
		116-H-9	Crib		CPP
		126-H-2	Demolition and Inert Landfill		CPP
		132-H-1	Stack		CPP

		132-H-3	Pump Station		CPP
		1607-H2	Septic Tank		CPP
		1607-H3	Septic Tank		CPP
4A	100-HR-3 (GW O.U.)	100-HR-1	Source O.U.	Ecology	RPP
		100-HR-2	Source O.U.		RPP
		100-DR-1	Source O.U.		RPP
		100-DR-2	Source O.U.		RPP
		100-DR-3	Source O.U.		RPP
5	100-DR-1 (GW addressed by 100-HR-3)	116-D-1A	Trench	Ecology	CPP
		116-D-1B	Trench		CPP
		116-D-2	Crib		CPP
		116-D-3	French Drain		CPP
		116-D-4	French Drain		CPP
		116-D-5	Outfall Structure		CPP
		116-D-6	French Drain		CPP
		116-D-7	Retention Basin		CPP
		116-D-9	Crib		CPP
		116-D-10	Pit		CPP
		116-DR-1	Trench		CPP
		116-DR-2	Trench		CPP
		116-DR-5	Outfall Structure		CPP
		116-DR-9	Retention Basin		CPP
		120-D-1	Ponds		TSD (-1-1)
		120-D-2	Storage Tank		CPP
		126-D-1	Ash Pit		CPP
		126-D-2	Demolition and Inert Landfill		CPP
		126-D-3	Brine Pit		CPP
		128-D-2	Burn Pit		CPP
		130-D-1	Storage Tank		CPP
		132-D-1	Building		CPP
		132-D-2	Building		CPP
		132-D-3	Pump Station		CPP
		1607-D2	Septic Tank		CPP
		1607-D4	Septic Tank		CPP

		1607-D5	Septic Tank		CPP
		1628-3	Burn Pit		CPP
6	100-BC-1 (GW addressed by 100-BC-5)	116-B-1	Trench	EPA	CPP
		116-B-2	Trench		CPP
		116-B-3	Crib		CPP
		116-B-4	French Drain		CPP
		116-B-5	Crib		CPP
		116-B-6A	Crib		CPP
		116-B-6B	Crib		CPP
		116-B-7	Outfall Structure		CPP
		116-B-9	French Drain		CPP
		116-B-10	French Drain		CPP
		116-B-11	Retention Basin		CPP
		116-B-12	Crib		CPP
		116-B-13	Trench		CPP
		116-B-14	Trench		CPP
		116-B-15	Pit		CPP
		116-B-16	Storage Tank		CPP
		116-C-1	Trench		CPP
		116-C-5	Retention Basin		CPP
		118-B-5	Burial Ground		CPP
		118-B-7	Burial Ground		CPP
		118-B-10	Pit		CPP
		120-B-1	Sump		CPP
		126-B-1	Ash Pit		CPP
		126-B-2	Demolition and Inert Landfill		CPP
		126-B-3	Demolition and Inert Landfill		CPP
		126-B-4	Brine Pit		CPP
		128-B-1	Burning Pit		CPP
		128-B-2	Burning Pit		CPP
		128-B-3	Burning Pit		CPP
		128-C-1	Burning Pit		CPP
		132-B-1	Building		CPP
		132-B-3	Stack		CPP

		132-B-4	Building		CPP
		132-B-5	Building		CPP
		132-B-6	Outfall Structure		CPP
		132-C-2	Outfall Structure		CPP
		1607-B1	Septic Tank		CPP
		1607-B2	Septic Tank		CPP
		1607-B3	Septic Tank		CPP
		1607-B4	Septic Tank		CPP
		1607-B5	Septic Tank		CPP
		1607-B6	Septic Tank		CPP
		1607-B7	Septic Tank		CPP
6A	100-BC-5 (GW O.U.)	100-BC-1	Source O.U.	EPA	CPP
		100-BC-2	Source O.U.		CPP
		100-BC-3	Source O.U.		CPP
		100-BC-4	Source O.U.		CPP
7	100-KR-1 (GW addressed by 100-KR-4)	116-KE-4	Retention Basin	EPA	CPP
		116-KW-3	Retention Basin		CPP
		116-K-1	Crib		CPP
		116-K-2	Trench		CPP
		116-K-3	Outfall Structure		CPP
7A	100-KR-4 (GW O.U.)	100-KR-1	Source O.U.	EPA	CPP
		100-KR-2	Source O.U.		CPP
		100-KR-3	Source O.U.		CPP
8	100-NR-1	116-N-1 (1301-N)	Crib	Ecology	TSD (D-1-2)
		116-N-2	Storage Tank		RPP
		116-N-3 (1325-N)	Crib		TSD (D-1-2)
		116-N-4	Septic Tank		
		118-N-1	Silos		
		120-N-1 (1324-N)	Pond		TSD (T-1-2)
		120-N-2 (1324-NA)	Neutralization Unit		TSD (T-1-2)
		120-N-3	French Drain		RPP
		120-N-5	Neutralization Unit		RPP
		120-N-6	French Drain		RPP
		120-N-7	French Drain		RPP

120-N-8	French Drain	RPP
124-N-1	Septic Tank	RPP
124-N-2	Septic Tank	RPP
124-N-3	Septic Tank	
124-N-4	Septic Tank	RPP
124-N-5	Septic Tank	RPP
124-N-6	Septic Tank	RPP
124-N-7	Septic Tank	RPP
124-N-8	Septic Tank	RPP
124-N-9	Septic Tank	RPP
124-N-10	Sewer	RPP
128-N-1	Burning Pit	RPP
130-N-1	Pond	RPP
UN-100-N-1	Unplanned Release	
UN-100-N-2	Unplanned Release	RPP
UN-100-N-3	Unplanned Release	
UN-100-N-4	Unplanned Release	RPP
UN-100-N-5	Unplanned Release	RPP
UN-100-N-6	Unplanned Release	RPP
UN-100-N-7	Unplanned Release	
UN-100-N-8	Unplanned Release	RPP
UN-100-N-9	Unplanned Release	RPP
UN-100-N-10	Unplanned Release	
UN-100-N-11	Unplanned Release	RPP
UN-100-N-12	Unplanned Release	
UN-100-N-13	Unplanned Release	RPP
UN-100-N-14	Unplanned Release	RPP
UN-100-N-15	Unplanned Release	RPP
UN-100-N-17	Unplanned Release	RPP
UN-100-N-18	Unplanned Release	RPP
UN-100-N-19	Unplanned Release	RPP
UN-100-N-20	Unplanned Release	RPP
UN-100-N-21	Unplanned Release	RPP
UN-100-N-22	Unplanned Release	RPP
UN-100-N-23	Unplanned Release	RPP
UN-100-N-24	Unplanned Release	RPP
UN-100-N-25	Unplanned Release	RPP

		UN-100-N-26	Unplanned Release		RPP
		UN-100-N-29	Unplanned Release		
		UN-100-N-30	Unplanned Release		
		UN-100-N-31	Unplanned Release		RPP
		UN-100-N-32	Unplanned Release		
		UN-100-N-33	Unplanned Release		RPP
		UN-100-N-34	Unplanned Release		RPP
		UN-100-N-35	Unplanned Release		
		UN-600-N-17	Unplanned Release		RPP
		HGP Transformer Yard			
		HGP Tile Field			
		HGP Settling pond			
		HGP Outfall			
		Maintenance Garage French Drain			
		HGP Disposal and Storage Area			
		1701-NE Septic Tank			
		1703-N Septic Tank			
		600-32 Dumping Area			
		HGP Diesel Oil Storage Tank			
9	100-NR-2 (GW O.U.)	100-NR-1	Source O.U.	Ecology	RPP
10	100-FR-1	116-F-1	Trench	EPA	CPP
		116-F-2	Trench		CPP
		116-F-3	Trench		CPP
		116-F-4	Crib		CPP
		116-F-5	Crib		CPP
		116-F-6	Trench		CPP
		116-F-7	French Drain		CPP
		116-F-8	Outfall Structure		CPP
		116-F-9	Trench		CPP
		116-F-10	French Drain		CPP
		116-F-11	French Drain		CPP
		116-F-12	French Drain		CPP
		116-F-13	French Drain		CPP

		116-F-14	Retention Basin		CPP
		116-F-15	Crib		CPP
		116-F-16	Outfall		CPP
		126-F-2	Demolition and Inert Landfill		CPP
		128-F-2	Burning Pit		CPP
		132-F-3	Building		CPP
		132-F-4	Stack		CPP
		132-F-5	Building		CPP
		132-F-6	Pump Station		CPP
		1607-F2	Septic Tank		CPP
		1607-F3	Septic Tank		CPP
		1607-F4	Septic Tank		CPP
		1607-F5	Septic Tank		CPP
		1607-F6	Septic Tank		CPP
		UN-100-F-1	Unplanned Release		CPP
10A	100-FR-3 (GW O.U.)	100-FR-1	Source O.U.	EPA	CPP
		100-FR-2	Source O.U.		CPP
		100-IU-2	Source O.U.		
		100-IU-5	Source O.U.		
11	200-UP-2	200-W Powerhouse Pond	Pond	Ecology	CPP
		200 West Constr. Surface Laydown Area	Burial Ground		CPP
		207-U	Retention Basin		CPP
		216-U-1&2	Crib		CPP
		216-U-3	French Drain		CPP
		216-U-4	Reverse Well		CPP
		216-U-4A	French Drain		CPP
		216-U-4B	French Drain		CPP
		216-U-5	Trench		CPP
		216-U-6	Trench		CPP
		216-U-7	French Drain		CPP
		216-U-8	Crib		CPP
		216-U-9	Ditch		
		216-U-10	Pond		
		216-U-11	Ditch		

216-U-12	Crib	TSD (D-2-8)
216-U-13	Trench	
216-U-14	Ditch	CPP
216-U-15	Trench	CPP
216-U-16	Crib	CPP
216-U-17	Crib	CPP
216-Z-11	Ditch	
216-Z-19	Ditch	
216-Z-1D	Ditch	
216-Z-20	Crib	
241-U-361	Settling Tank	CPP
241-UX-154	Diversion Box	CPP
241-UX-302A	Catch Tank	CPP
241-WR Vault	Vault	CPP
270-W	Neutralization Tank	CPP
2607-W5	Septic Tank	CPP
2607-W7	Septic Tank	CPP
2607-W9	Septic Tank	
UN-200-W-19	Unplanned Release	CPP
UN-200-W-33	Unplanned Release	CPP
UN-200-W-39	Unplanned Release	CPP
UN-200-W-46	Unplanned Release	CPP
UN-200-W-48	Unplanned Release	CPP
UN-200-W-55	Unplanned Release	CPP
UN-200-W-60	Unplanned Release	CPP
UN-200-W-68	Unplanned Release	
UN-200-W-78	Unplanned Release	CPP
UN-200-W-86	Unplanned Release	CPP
UN-200-W-101	Unplanned Release	CPP
UN-200-W-117	Unplanned Release	CPP
UN-200-W-118	Unplanned Release	CPP
UN-200-W-125	Unplanned Release	CPP
UN-200-W-161	Unplanned Release	CPP
U Plant Burning Pit	Burial Ground	CPP

12	100-BC-2 (GW addressed by 100-BC-5)	116-C-2A	Crib	EPA	CPP
		116-C-2B	Pump Station		CPP
		116-C-2C	Sand Filter		CPP
		116-C-3	Storage Tank		CPP
		116-C-6	Pit		CPP
		118-B-1	Burial Ground		CPP
		118-B-2	Burial Ground		CPP
		118-B-3	Burial Ground		CPP
		118-B-4	Burial Ground		CPP
		118-B-6	Burial Ground		CPP
		118-C-1	Burial Ground		CPP
		118-C-2	Storage Tank		CPP
		132-C-1	Stack		CPP
		132-C-3	Building		CPP
		1607-B8	Septic Tank		CPP
		1607-B9	Septic Tank		CPP
		1607-B10	Septic Tank		CPP
		1607-B11	Septic Tank		CPP
13	200-BP-5 (GW O.U.)	200-BP-1	Source O.U.	EPA	CPP
		200-BP-3	Source O.U.		CPP
		200-BP-4	Source O.U.		CPP
		200-BP-6	Source O.U.		CPP
		200-BP-7	Source O.U.		CPP
		200-BP-8	Source O.U.		CPP
		200-BP-9	Source O.U.		CPP
		200-BP-10	Source O.U.		CPP
		200-BP-11 (North Part)	Source O.U.		CPP
		200-NO-1	Source O.U.		CPP
		200-PO-2 (North Part)	Source O.U.		CPP
		200-PO-3 (North Part)	Source O.U.		CPP
		200-PO-5 (North Part)	Source O.U.		CPP

		200-SO-1	Source O.U.		CPP
		200-IU-6	Source O.U.		CPP
14	100-DR-2 (GW addressed by 100-HR-3)	116-DR-3	Trench	Ecology	RPP
		116-DR-4	Crib		RPP
		116-DR-6	Trench		RPP
		116-DR-7	Crib		RPP
		116-DR-8	Crib		RPP
		118-D-5	Burial Ground		RPP
		126-DR-1	Tank Pit		RPP
		132-DR-1	Pump Station		RPP
		1607-D3	Septic Tank		RPP
		116-D-8	Storage Pad Sodium Dichromate Tanker Off-Loading Facility		RPP
		118-DR-2	Reactor Building		
		122-DR-1	Fire Facility		
		132-DR-2	Exhaust Stack		
		116-DR-10	Pit		
		118-D-1	Burial Ground		
		118-D-2	Burial Ground		
		118-D-3	Burial Ground		
		118-D-4	Burial Ground		
		118-DR-1	Burial Ground		
		128-D-1	Burning Pit		
		1607-D1	Septic Tank		
16	100-KR-2 (GW addressed by 100-KR-4)	120-KE-1	French Drain	EPA	CPP
		120-KW-2	French Drain		CPP
		120-KE-3	Trench		CPP
		120-KE-2	French Drain		CPP
		120-KW-5	Storage Tank		CPP
		120-KE-6	Storage Tank		CPP
		120-KE-9	Brine Pit		CPP
		120-KW-1	French Drain		CPP


		120-KW-7	Brine Pit	CPP
		128-K-1	Burning Pit	CPP
		128-K-2	Burning Pit	CPP
		130-K-3	Storage Tank	CPP
		1607-K1	Septic Tank	CPP
		1607-K2	Septic Tank	CPP
		1607-K3	Septic Tank	CPP
		1607-K5	Septic Tank	CPP
		130-KE-1	Storage Tank	CPP
		130-KW-1	Storage Tank	CPP
		116-KE-1	Crib	CPP
		116-KE-2	Crib	CPP
		116-KE-3	Reverse Well	CPP
		116-KW-1	Crib	CPP
		116-KW-2	Reverse Well	CPP
		118-K-1	Burial Ground	CPP
		120-KE-8	Brine Pit	CPP
		120-KW-6	Brine Pit	CPP
		126-K-1	Demolition and Inert Landfill	CPP
		1607-K4	Septic Tank	CPP
		1607-K6	Septic Tank	CPP
		130-KE-2	Storage Tank	CPP
		130-KW-2	Storage Tank	CPP
		130-K-1	Storage Tank	CPP
		130-K-2	Storage Tank	CPP
		UN-100-K-1	Unplanned Release	CPP
17	200-BP-4 (Source O.U.)	216-B-11A&B	Reverse Well	Ecology
		216-B-51	French Drain	
		216-B-7A&B	Crib	
		216-B-8TF	Crib	

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Hanford Federal Facility Agreement and Consent Order

APPENDIX 2 ACTION PLAN

Table D. Major and Interim Milestones and Target Dates

APPENDIX D WORK SCHEDULE

- Listing of Currently Identified Interim and Major Milestones and Target Dates

NOTES:

Major Milestones are indicated by a -00 suffix (example, M-21-00).
Interim Milestones are indicated by a suffix greater than zero
(example, M-22-02). A target date is indicated by a "T"
(example, M-21-02-T01). See Section 2.0 of this Action plan for
more details.

Milestones and target dates which are completed, or have been
deleted by an approved Tri-Party Agreement change request, are not
displayed in Appendix D and have been archived.

<u>Number</u>	<u>Milestone</u>	<u>Due Date</u>
M-13-00K	SUBMIT 1 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2000

**LEAD AGENCY:
DUAL (NOTE 1)**

M-13-00L	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2001
LEAD AGENCY: DUAL (NOTE 1)		
M-13-00M	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2002
LEAD AGENCY: DUAL (NOTE 1)		
M-13-00N	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2003
LEAD AGENCY: DUAL (NOTE 1)		
M-13-00O	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2004
LEAD AGENCY: DUAL (NOTE 1)		
M-13-00P	SUBMIT 4 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2005
LEAD AGENCY: DUAL (NOTE 1)		
M-13-19	SUBMIT 200 NORTH POND COOLING WATER GROUP WORK PLAN.	2/28/1999
M-13-20	SUBMIT GABLE MOUNTIAN/B POND AND DITCH COOLING WATER GROUP WORK PLAN.	4/30/1999
M-13-21	SUBMIT CHEMICAL SEWER GROUP WORK PLAN.	8/31/1999
M-13-22	SUBMIT U POND/Z-DITCHES COOLING WATER GROUP WORK PLAN.	12/31/1999
M-13-23	SUBMIT URANIUM RICH PROCESS WASTE GROUP WORK PLAN.	4/30/2000
M-13-24	SUBMIT GENERAL PROCESS WASTE GROUP WORK PLAN.	8/31/2000
NOTE 1:	SEE OPERABLE UNIT LRA DESIGNATION LISTING IN APPENDIX C.	
M-15-00	COMPLETE THE RI/FS (OR RFI/CMS) PROCESS FOR ALL OPERABLE UNITS.	12/31/2008

M-15-00A	COMPLETE ALL REMAINING 100 AREA OPERABLE UNIT PRE-ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN	12/31/1999
LEAD AGENCY: EPA	SCHEDULES (100-KR-2, 100-KR-3, 100-FR-2, 100-IU-2, AND 100-IU-6).	
M-15-00B	COMPLETE ALL 300 AREA OPERABLE UNIT PRE-ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN SCHEDULES.	12/31/1999
LEAD AGENCY: EPA		
M-15-00C	COMPLETE ALL 200 AREA NON-TANK FARM OPERABLE UNIT PRE-ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN	12/31/2008
LEAD AGENCY: DUAL (NOTE 1)	SCHEDULES.	
M-15-02E-T3	EPA WILL ISSUE A FINAL ROD FOR THE 200-BP-1 OU.	6/01/1994
M-15-02E-T4	DOE WILL SUBMIT A DEFINITIVE DESIGN FOR THE MODIFIED RCRA BARRIER TO EPA/ECOLOGY 2 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN AUGUST 1, 1994. (THIS TARGET DATE DUE 2 MONTHS AFTER EPA ISSUES ROD - SEE M-15-02E-T03).	2 MONTHS AFTER ISSUANCE OF ROD BY EPA
M-15-02E-T5	DOE WILL SUBMIT A REMEDIAL ACTION PLAN TO EPA/ECOLOGY 4 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN OCTOBER 1, 1994.	4 MONTHS AFTER ISSUANCE OF ROD BY EPA
M-15-02E-T6	DOE WILL COMPLETE THE BID AND AWARD CYCLE FOR THE FINAL BARRIER 8 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN FEBRUARY 15, 1995.	8 MONTHS AFTER ISSUANCE OF ROD BY EPA
M-15-02E-T7	DOE WILL COMPLETE REMEDIATION ACTIVITIES AT THE 200- BP-1 OU 15 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN OCTOBER 1, 1994.	15 MONTHS AFTER ISSUANCE OF ROD BY EPA

M-15-23B	SUBMIT THE 300-FF-2 FOCUSED FEASIBILITY STUDY REPORT AND PROPOSED PLAN FOR REGULATOR REVIEW.	11/30/1999
M-16-00	COMPLETE REMEDIAL ACTIONS FOR ALL NON-TANK FARM OPERABLE UNITS.	9/30/2018
LEAD AGENCY: DUAL (NOTE 1)	COMPLETE DECONTAMINATION AND DECOMMISSIONING OF ALL 100 AREA BUILDINGS AND STRUCTURES (EXCEPT 105-B, 105-C, 105-D, 105-DR, 105- F, 105-H, 105-KE, 105-KW, AND 105-N REACTOR BUILDINGS).	
NOTE 1:	SEE OPERABLE UNIT LRA DESIGNATION LISTING IN APPENDIX C.	
M-16-00A	COMPLETE ALL 100 AREA REMEDIAL ACTIONS.	TBD
M-16-00B	COMPLETE ALL 300 AREA REMEDIAL ACTIONS.	TBD
M-16-00F	ESTABLISH DATE FOR COMPLETION OF ALL 100 AREA REMEDIAL ACTIONS.	12/31/2001
M-16-01	COMPLETE 100-N AREA DECONTAMINATION AND DECOMMISSIONING.	TBD
M-16-03A	ESTABLISH DATE FOR COMPLETION OF 300 AREA REMEDIAL ACTIONS.	6/30/2002
M-16-03D	COMPLETE REMEDIATION OF THE WASTE SITES IN THE 300-FF -1 OPERABLE UNIT AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 300-FF-1 OPERABLE UNIT (DOE-RL-96-70).	5/31/1999
M-16-07B	COMPLETE REMEDIATION AND BACKFILL OF 22 LIQUID WASTE SITES AND PROCESS EFFLUENT PIPELINES IN THE 100-DR-1 AND 1—DR-2 OPERABLE UNITS AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 100 AREA (DOE/RL-96-17).	4/30/2000
M-16-08B	COMPLETE REMEDIATION AND BACKFILL OF 19 LIQUID WASTE SITES IN THE 100-BC-1 AND 100-BC-2 OPERABLE UNITS AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 100 AREA (DOE/RL-96-17).	9/30/1999
M-16-10A	INITIATE REMEDIAL ACTION IN THE 100-KR-1 OPERABLE UNIT.	7/31/2002

M-16-13A	INITIATE REMEDIAL ACTION IN THE 100-FR-1 OPERABLE UNIT.	1/31/2000
M-16-13B	COMPLETE REMEDIATION AND BACKFILL OF 16 LIQUID WASTE SITES AND PROCESS EFFLUENT PIPELINES IN THE 100-FR-1 & 100-FR-2 OPERABLE UNITS AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 100 AREA.	8/31/2003
M-16-26A	INITIATE REMEDIAL ACTION 100-HR-1 OPERABLE UNIT.	3/31/1999
M-16-26B	COMPLETE REMEDIATION, BACKFILL AND REVEGETATION OF 51 LIQUID WASTE SITES AND PROCESS EFFLUENT PIPELINES IN THE 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2 AND 100-HR -1 OPERABLE UNITS AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 100 AREA (DOE/RL-96-17).	2/28/2001
M-16-26C	COMPLETE REMEDIATION AND BACKFILL OF 10 LIQUID WASTE SITES AND PROCESS EFFLUENT PIPELINES IN THE 100-HR-1 OPERABLE UNIT AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 100 AREA.	8/31/2000
M-16-92B	ERDF CELLS 3 & 4 READY TO ACCEPT REMEDIATION WASTES.	12/31/1999
M-19-00	COMPLETE TREATMENT/AND OR DIRECT DISPOSAL OF AT LEAST 1,644 CUBIC METERS OF CONTACT HANDLED LOW LEVEL MIXEDWASTE ALREADY IN STORAGE AS OF OCTOBER 1, 1995, AS WELL AS NEWLY GENERATED HANFORD SITE LOW LEVEL MIXED WASTE.	9/30/2002
LEAD AGENCY: ECOLOGY	CUMULATIVE TREATMENT AND/OR DIRECT DISPOSAL RATES WILL BE AT LEAST 246 CUBIC METERS BY THE END OF FY 2000, 822 CUBIC METERS BY THE END OF FY 2001, AND 1,644 CUBIC METERS BY THE END OF FY 2002.	
	FOR THE PURPOSE OF THESE M-19 SERIES MILESTONES, DIRECT DISPOSAL OF LOW-LEVEL MIXED WASTE AS DESCRIBED BELOW, WILL BE CONSIDERED EQUIVALENT TO TREATMENT.	
M-19-01	INITIATE TREATMENT OF CONTACT HANDLED LOW LEVEL MIXED WASTES.	9/30/1999

	TREATMENT OF CONTACT HANDLED LOW LEVEL MIXED WASTE WILL BEGIN ON OR BEFORE SEPTEMBER 30, 1999.	
M-19-01-T03	COMPLETE ALL NEPA REQUIREMENTS RELATED TO THE COMMERCIAL CONTRACT FOR STABILIZATION OF CONTACT HANDLED LOW LEVEL MIXED WASTE.	9/30/1998
M-20-00	SUBMIT PART B PERMIT APPLICATIONS OR CLOSURE/POSTCLOSURE PLANS FOR ALL RCRA TSD UNITS. PERMIT APPLICATIONS, CLOSURE, AND POST-CLOSURE PLANS WILL BE SUBMITTED TO ECOLOGY FOR APPROVAL. INDIVIDUAL UNIT SUBMITTALS (ENFORCEABLE AS INTERIM MILESTONES) WILL OCCUR AS SHOWN IN APPENDIX D.	2/28/2004
LEAD AGENCY: ECOLOGY		
	PRECLOSURE WORK PLANS WILL BE PREPARED AND SUBMITTED FOR APPROVAL FOR TSD UNITS WHICH WILL ACHIEVE CLOSURE IN CONJUNCTION WITH THE DISPOSITION OF THE FACILITY IN WHICH THEY ARE CONTAINED.	
M-20-29A	SUBMIT SODIUM STORAGE FACILITY AND SODIUM REACTION FACILITY CLOSURE PLAN OR REQUEST FOR PROCEDURAL CLOSURE AS DEFINED IN SECTION 6.3.3 OF THIS TRI-PARTY AGREEMENT TO EPA AND ECOLOGY.	12/31/1999
	A POTENTIAL USE FOR THE SODIUM AS FEEDSTOCK IN THE TWRS PROGRAM HAS BEEN IDENTIFIED AND WILL BE EVALUATED AS DISCUSSED PURSUANT TO M-81-02-T01. THE SODIUM WILL BE STORED AS PRODUCT MATERIAL IN THE SODIUM STORAGE FACILITY UNTIL THE FINAL DISPOSITION OF THE MATERIAL IS DETERMINED. FFTF IS PROCEEDING ON THE BASIS OF PROVIDING RCRA AND WAC 173-303 COMPLIANT STORAGE FOR THE SODIUM. THE SODIUM REACTION FACILITY IS INCLUDED IN THE PERMIT REQUEST, EVEN THOUGH THE SODIUM REACTION FACILITY AVAILABILITY AND REGULATORY STATUS WILL BE DETERMINED BY THE 1998 EVALUATION/DECISION POINT. IF THE SODIUM USE FOR THE TWRS IS CONFIRMED, A REQUEST FOR PROCEDURAL CLOSURE AS DEFINED IN SECTION 6.3.3 OF THE TRI-PARTY AGREEMENT WILL BE SUBMITTED	

FOR THE SODIUM STORAGE FACILITY AND SODIUM REACTION FACILITY UNITS. IF THE SODIUM IS DETERMINED TO BE A WASTE, A CLOSURE PLAN WILL BE SUBMITTED FOR THE TWO UNITS.

M-20-33	SUBMIT 216-A-10 CRIB AND 216-A-36B CRIB CLOSURE/POSTCLOSURE PLANS TO ECOLOGY IN COORDINATION WITH THE WORK PLAN FOR URANIUM RICH PROCESS WASTE GROUP (TO BE COORDINATED WITH M-13-23).	10/31/2003
M-20-39	SUBMIT 216-S-10 POND AND DITCH CLOSURE/POSTCLOSURE PLANS TO ECOLOGY IN COORDINATION WITH THE WORK PLAN FOR THE CHEMICAL SEWER GROUP (TO BE COORDINATED WITH M-13-21).	2/28/2003
M-20-52	SUBMIT 216-A-37-1 CRIB CLOSURE/POSTCLOSURE PLAN TO ECOLOGY IN COORDINATION WITH THE WORK PLAN FOR THE GENERAL PROCESS WASTE GROUP (TO BE COORDINATED WITH M-13-24).	12/31/2003
M-20-53	SUBMIT 207-A RETENTION BASIN CLOSURE/POSTCLOSURE PLAN TO ECOLOGY IN COORDINATION WITH THE WORK PLAN FOR THE GENERAL PROCESS WASTE GROUP (TO BE COORDINATED WITH M-13-24).	12/31/2003
M-20-54	SUBMIT 241-CX TANK SYSTEM CLOSURE/POSTCLOSURE PLAN TO ECOLOGY IN COORDINATION WITH THE WORK PLAN FOR THE INFRASTRUCTURE WASTE GROUP (TO BE COORDINATED WITH M-13-00K).	2/28/2004
M-20-56	SUBMIT CANISTER STORAGE FACILITY PART B DANGEROUS WASTE PERMIT APPLICATION TO ECOLOGY.	12/31/2000
M-20-57	SUBMIT INTERIM ILAW FACILITY PART B PERMIT APPLICATION TO ECOLOGY.	12/31/2000
M-20-58	SUBMIT LAW DISPOSAL FACILITY PART B PERMIT APPLICATION TO ECOLOGY.	12/31/2003

M-24-00J INSTALL RCRA GROUNDWATER MONITORING 12/31/1998
WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY
1990, AND UP TO 50 PER YEAR THEREAFTER AS
SPECIFIED BY AGREED INTERIM MILESTONES
UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-
SHELL TANKS ARE DETERMINED TO HAVE
RCRA COMPLIANT MONITORING SYSTEMS.

USDOE WILL INSTALL GROUNDWATER
MONITORING WELLS AROUND RCRA LAND
DISPOSAL UNITS AND THE SINGLE-SHELL
TANKS AT THE RATE DESCRIBED ABOVE UNTIL
ECOLOGY AGREES THAT ALL SUCH
GROUNDWATER MONITORING SYSTEMS MEET
THE REQUIREMENTS OF WAC 173-303-645.
INSTALLATION OF GROUNDWATER WELLS
SHALL MEAN THAT WELLS HAVE BEEN
DRILLED, ADEQUATELY SEALED, AND
SCREENED OVER NO MORE THAN 15 FEET OF
THE AQUIFER UNLESS OTHERWISE APPROVED
BY ECOLOGY, THAT ALL PUMPS AND
ASSOCIATED SAMPLING EQUIPMENT HAVE
BEEN INSTALLED, AND THAT SUCH WELLS
HAVE BEEN DEVELOPED SUFFICIENTLY TO
PROVIDE SATISFACTORY SAMPLES FOR ALL
PARAMETERS TO BE ANALYZED.
SPECIFIC UNITS TO RECEIVE GROUNDWATER
WELLS AND THE NUMBER OF WELLS TO BE
INSTALLED AT EACH UNIT WILL BE IDENTIFIED
IN APPENDIX D IN TWO-YEAR INTERVALS (I.E.,
1989 AND CY 1990 NOW, CY 1990 AND CY 1991
AT THE NEXT CY ANNUAL UPDATE, ETC.). SUCH
SCHEDULES WILL BE ENFORCEABLE AS
INTERIM MILESTONES.

**LEAD AGENCY:
ECOLOGY**

M-24-00K INSTALL RCRA GROUNDWATER MONITORING 12/31/1999
WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY
1990, AND UP TO 50 PER YEAR THEREAFTER AS
SPECIFIED BY AGREED INTERIM MILESTONES
UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-
SHELL TANKS ARE DETERMINED TO HAVE
RCRA COMPLIANT MONITORING SYSTEMS.
(PLEASE REFER TO MILESTONE
M-24-00J FOR COMPLETE WORDING OF THIS
MILESTONE AND WORDING DETERMINING
NUMBER OF WELLS TO BE DRILLED IN ANY ONE
YEAR).

**LEAD AGENCY:
ECOLOGY**

M-24-00L	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY 1990, AND UP TO 50 PER YEAR THEREAFTER AS SPECIFIED BY AGREED INTERIM MILESTONES UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-SHELL TANKS ARE DETERMINED TO HAVE RCRA COMPLIANT MONITORING SYSTEMS. (PLEASE REFER TO MILESTONE M-24-00J FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2000
LEAD AGENCY: ECOLOGY		
M-24-00M	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY 1990, AND UP TO 50 PER YEAR THEREAFTER AS SPECIFIED BY AGREED INTERIM MILESTONES UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-SHELL TANKS ARE DETERMINED TO HAVE RCRA COMPLIANT MONITORING SYSTEMS. (PLEASE REFER TO MILESTONE M-24-00J FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2001
LEAD AGENCY: ECOLOGY		
M-24-00N	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY 1990, AND UP TO 50 PER YEAR THEREAFTER AS SPECIFIED BY AGREED INTERIM MILESTONES UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-SHELL TANKS ARE DETERMINED TO HAVE RCRA COMPLIANT MONITORING SYSTEMS. (PLEASE REFER TO MILESTONE M-24-00J FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2002
LEAD AGENCY: ECOLOGY		
M-24-00O	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY 1990, AND UP TO 50 PER YEAR THEREAFTER AS SPECIFIED BY AGREED INTERIM MILESTONES UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-SHELL TANKS ARE DETERMINED TO HAVE RCRA COMPLIANT MONITORING SYSTEMS. (PLEASE REFER TO MILESTONE M-24-00J FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2003 and annually thereafter
LEAD AGENCY:		

ECOLOGY

YEAR).

M-26-01I

SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR.

4/30/1999
and annually
thereafter

THE REPORT SHALL INCLUDE A DESCRIPTION OF ACTIVITIES PLANNED AND TAKEN IN ACCORDANCE WITH THE LDR PLAN AND PRIOR ANNUAL LDR REPORTS TO ACHIEVE FULL COMPLIANCE WITH LDR REQUIREMENTS. THE REPORT SHALL UPDATE ALL INFORMATION CONTAINED IN THE LDR PLAN AND THE PRIOR ANNUAL LDR REPORT, INCLUDING PLANS AND SCHEDULES.

THE FORMAT FOR THE REPORT SHALL BE BASED ON THE "REQUIREMENTS FOR THE HANFORD LDR PLAN," ISSUED BY EPA AND ECOLOGY ON APRIL 10, 1990. ADDITIONALLY, THE REPORT SHALL DESCRIBE ANY OTHER STUDIES OR EFFORTS THAT HAVE BEEN OR WILL BE UNDERTAKEN TO IDENTIFY ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTES. THE NONRADIOACTIVE PORTION OF ANY MIXED WASTES THAT ARE REGULATED UNDER WASHINGTON STATE-ONLY REGULATIONS SHALL BE ADDRESSED IN THE REPORT. THE REPORT SHALL BE SUBMITTED AS A PRIMARY DOCUMENT.

THE REPORT SHALL SPECIFY INTERIM MILESTONES FOR ACHIEVING COMPLIANCE WITH LDR REQUIREMENTS AT TSD MIXED WASTE UNITS. THESE MILESTONES SHALL BE BASED ON SIGNIFICANT EVENTS IDENTIFIED IN THE LDR REPORT AND ARE SHOWN IN SCHEDULES WHICH ARE UPDATED ANNUALLY AS PART OF THE REPORT. APPROPRIATE MILESTONES WILL BE INCORPORATED IN THE AGREEMENT VIA THE CHANGE PROCESS DEFINED IN SECTION 12 OF THE ACTION PLAN UPON ISSUANCE OF THE APPROVED REPORTS.

M-26-01J	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR. “SEE M-26-01I FOR COMPLETE WORKING OF THIS MILESTONE”.	4/30/2000 and annually thereafter
M-26-01K	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR. “SEE M-26-01I FOR COMPLETE WORKING OF THIS MILESTONE”.	4/30/2001 and annually thereafter
M-26-01L	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR. “SEE M-26-01I FOR COMPLETE WORKING OF THIS MILESTONE”.	4/30/2002 and annually thereafter
M-26-01M	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR. “SEE M-26-01I FOR COMPLETE WORKING OF THIS MILESTONE”.	4/30/2003 and annually thereafter
M-26-05F	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/1999 and biennially thereafter

M-26-05H	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2001 and biennially thereafter
M-26-05J	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2003 and biennially thereafter
M-26-05L	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2005 and biennially thereafter
M-32-00	COMPLETE IDENTIFIED DANGEROUS WASTE TANK CORRECTIVE ACTIONS.	9/30/1999
LEAD AGENCY: ECOLOGY	<p>COMPLETION OF INTERIM MILESTONE TASKS MAY IDENTIFY THE NEED FOR ADDITIONAL ACTIONS OR INTERIM MILESTONES IN THE FUTURE. THE REPORTS AND DEFICIENCY CORRECTION SCHEDULES PREPARED TO SATISFY CURRENT MILESTONES WILL BE USED TO IDENTIFY ANY APPROPRIATE NEW INTERIM MILESTONES. ANY NEW INTERIM MILESTONES WILL SUBSEQUENTLY BE ESTABLISHED VIA THE CHANGE PROCESS IN SECTION 12 OF THE ACTION PLAN.</p> <p>TANK INTEGRITY ASSESSMENTS WILL NOT BE REQUIRED FOR TERMINAL CLEANOUT OF THE PLUTONIUM-URANIUM EXTRACTION PLANT, EXCEPT FOR TANKS F18, U3, AND U4. INTEGRITY ASSESSMENTS FOR TANKS F18, U3, AND U4 HAVE BEEN COMPLETED.</p>	

M-32-02	COMPLETE 219-S TANK INTERIM STATUS ACTIONS.	4/30/1999
M-32-02-T03	COMPLETE CONSTRUCTION UPGRADES TO 219-S FACILITY (PROJECT W-178).	4/30/1999
M-32-03	COMPLETE T PLANT TANK ACTIONS.	9/30/1999
M-32-03-T06	COMPLETE SCHEDULED UPGRADES TO T PLANT TANK SYSTEM (PROJECT W-259).	9/30/1999
M-32-06	COMPLETE 244-AR VAULT INTERIM STATUS TANK ACTIONS.	TBD
M-32-06-T01	COMPLETE AND SUBMIT INTEGRITY ASSESSMENT REPORT AND IDENTIFIED UPGRADES FOR 244-AR VAULT INTERIM STATUS TANK SYSTEM (EXCEPT THAT DST TRANSFER LINES THAT PENETRATE THE 244-AR VAULT WILL CONTINUE TO BE USED). PROVIDE A SCHEDULE TO ADDRESS ANY DEFICIENCIES DESCRIBED IN THE REPORT RELATED TO TANK SYSTEM COMPLIANCE.	TBD
M-32-08	COMPLETE GROUT INTERIM STATUS TANK ACTIONS.	TBD
M-32-08-T01	COMPLETE AND SUBMIT INTEGRITY ASSESSMENT REPORT FOR GROUT INTERIM STATUS TANK SYSTEM. COMPLETE ACTIVITIES REQUIRED TO CORRECT ANY DEFICIENCIES DESCRIBED IN THE REPORT RELATED TO TANK SYSTEM COMPLIANCE.	TBD
M-34-00A LEAD AGENCY: EPA	COMPLETE REMOVAL OF SPENT NUCLEAR FUEL, SLUDGE, DEBRIS AND WATER AT DOE'S K BASINS ¹	07/31/07
M-34-03	DOE WILL SUBMIT A PROPOSED PLAN AND FOCUSED FEASIBILITY STUDY FOR REMEDIAL ACTION FOR THE K BASINS TO EPA AND ECOLOGY FOR APPROVAL. THE FOCUSED FEASIBILITY STUDY WILL ASSESS ALTERNATIVES FOR WASTE DISPOSITION AND WILL INCLUDE RESULTS OF CHEMICAL TREATMENT TESTS NECESSARY TO SUPPORT TANK WASTE REMEDIATION SYSTEMS ACCEPTANCE OF SLUDGE.	11/30/98

M-34-04

THE DOE SHALL SUBMIT A REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE K BASINS INTERIM ACTION TO EPA AND ECOLOGY FOR APPROVAL. THIS WORK PLAN SHALL BE CONSTRAINED BY THESE (M-34-98-01A) AGREEMENT MILESTONES AND TARGET DATES, AND SHALL PROPOSE DETAILED SCHEDULES FOR INITIATING AND COMPLETING ACTIVITIES REQUIRED FOR THE REMOVAL OF HAZARDOUS SUBSTANCES FROM K BASINS (SPENT NUCLEAR FUEL, SLUDGE, DEBRIS, AND WATER).

03/31/00

SLUDGE AND DEBRIS REMOVAL

M-34-05-T01

SUBMIT DOE APPROVED ANNUAL REPORT ON QUANTITIES, ANNUALLY CHARACTER, AND MANAGEMENT (E.G., SEGREGATION AND MANAGEMENT SUBSEQUENT TO REMOVAL) OF K BASINS DEBRIS TO ECOLOGY AND EPA. THE FINAL REPORT OF THIS SERIES SHALL BE THE ONE OCCURRING ONE YEAR AFTER COMPLETION OF MILESTONE M-34-00A.

M-34-06-T01

INITIATE K WEST SPENT NUCLEAR FUEL CANISTER CLEANING OPERATIONS. CANISTER CLEANING OPERATIONS CONSIST OF REMOVAL OF ALL CONTENTS FROM EACH CANISTER AND PROCESSING OF THE CANISTERS THROUGH THE RADIOACTIVE DECONTAMINATION APPARATUS.

12/31/00

M-34-07-T01

COMPLETE FINAL SAFETY BASIS FOR THE TRANSFER OF K BASINS SLUDGE.

12/31/03

PROVIDE TO ECOLOGY AND EPA THE DOE APPROVED:
K BASIN SAFETY ANALYSIS REPORT (SAR) UPDATE; STORAGE FACILITY SAR OR SAR MODIFICATION; AND, SAFETY ANALYSIS REPORT FOR PACKAGING (SARP) AUTHORIZING THE TRANSFER OF K BASINS SLUDGE.

M-34-08

INITIATE FULL SCALE K EAST BASIN SLUDGE REMOVAL.

07/31/04

DOE SHALL COMPLETE AND APPROVE K EAST SLUDGE REMOVAL DEFINITIVE DESIGN DOCUMENTS, ALL ASSOCIATED CONSTRUCTION, AND READINESS ASSESSMENTS, AND INITIATE REMOVAL OF SLUDGE FROM THE BASIN.

M-34-09-T01	COMPLETE K BASINS RACK AND CANISTER REMOVAL.	12/31/04
M-34-10	COMPLETE SLUDGE REMOVAL FROM K BASINS. <u>SPENT NUCLEAR FUEL REMOVAL</u>	08/31/05
M-34-11-T01	COMPLETE CONSTRUCTION OF K WEST BASIN INTEGRATED WATER TREATMENT SYSTEM TO SUPPORT SPENT NUCLEAR FUEL REMOVAL. THE K WEST BASIN INTEGRATED WATER TREATMENT SYSTEM SHALL BE CONSTRUCTED, INSTALLED, AND ACCEPTANCE TEST(S) COMPLETED.	06/30/99
M-34-12	COMPLETE CONSTRUCTION OF K EAST BASIN INTEGRATED WATER TREATMENT SYSTEM TO SUPPORT SPENT NUCLEAR FUEL REMOVAL. THE K EAST BASIN INTEGRATED WATER TREATMENT SYSTEM SHALL BE CONSTRUCTED, INSTALLED, AND ACCEPTANCE TEST(S) COMPLETED.	02/28/01
M-34-13A-T01	COMPLETE CONSTRUCTION AND INSTALLATION OF K WEST BASIN SPENT NUCLEAR FUEL RETRIEVAL SYSTEM. THE K WEST BASIN SPENT NUCLEAR FUEL RETRIEVAL SYSTEM SHALL BE CONSTRUCTED, INSTALLED, AND ACCEPTANCE TEST(S) COMPLETED.	07/31/99
M-34-13B-T01	COMPLETE CONSTRUCTION AND INSTALLATION OF K EAST BASIN SPENT NUCLEAR FUEL RETRIEVAL SYSTEM. THE K EAST BASIN SPENT NUCLEAR FUEL RETRIEVAL SYSTEM SHALL BE CONSTRUCTED, INSTALLED, AND ACCEPTANCE TEST(S) COMPLETED.	11/30/00
M-34-14A	COMPLETE K WEST CASK FACILITY MODIFICATIONS. THE K WEST CASK SYSTEM FACILITY MODIFICATIONS SHALL BE CONSTRUCTED, INSTALLED AND ACCEPTANCE TEST(S) COMPLETED.	09/30/99

M-34-14B-T01	COMPLETE K EAST CASK FACILITY MODIFICATIONS.	01/31/01
	THE K EAST CASK SYSTEM FACILITY MODIFICATIONS SHALL BE CONSTRUCTED, INSTALLED, AND ACCEPTANCE TEST(S) COMPLETED.	
M-34-15A-T01	COMPLETE TWO BAYS OF THE COLD VACUUM DRYING FACILITY CONSTRUCTION AND INSTALLATION. THE FIRST TWO BAYS OF THE COLD VACUUM DRYING FACILITY SHALL BE CONSTRUCTED, ALL PROCESS EQUIPMENT INSTALLED, AND ACCEPTANCE TESTS COMPLETED.	10/31/99
M-34-15B-T01	COMPLETE REMAINING BAY(S) OF THE COLD VACUUM DRYING FACILITY CONSTRUCTION AND INSTALLATION.	06/30/00
	THE REMAINING BAY(S) OF THE COLD VACUUM DRYING FACILITY SHALL BE CONSTRUCTED, ALL PROCESS EQUIPMENT INSTALLED, AND ACCEPTANCE TESTS COMPLETED.	
M-34-16	INITIATE REMOVAL OF K WEST BASIN SPENT NUCLEAR FUEL.	11/30/00
	THE COLD VACUUM DRYING (CVD) FACILITY AND CANISTER STORAGE BUILDING (CSB) SHALL BE READY TO RECEIVE SPENT NUCLEAR FUEL. THE SPENT NUCLEAR FUEL TRANSPORT SYSTEM SHALL BE OPERABLE. THE K WEST BASIN SPENT NUCLEAR FUEL RETRIEVAL SYSTEM SHALL BEGIN RETRIEVING, CLEANING, AND PACKAGING SPENT NUCLEAR FUEL, AND THE FIRST MULTI-CANISTER OVER PACK OF SPENT NUCLEAR FUEL WILL BE LOADED AND TRANSPORTED TO THE COLD VACUUM DRYING FACILITY FOR PROCESSING.	
M-34-17	INITIATE REMOVAL OF K EAST BASIN SPENT NUCLEAR FUEL.	11/30/01
	THE K EAST BASIN SPENT NUCLEAR FUEL RETRIEVAL SYSTEM SHALL BEGIN RETRIEVING, CLEANING, PACKAGING AND REMOVING SPENT NUCLEAR FUEL FOR TRANSPORT TO THE COLD VACUUM DRYING FACILITY.	

M-34-18A	COMPLETE REMOVAL OF ALL K WEST BASIN SPENT NUCLEAR FUEL.	04/30/03
	THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL SPENT NUCLEAR FUEL HAS BEEN REMOVED. IT IS UNDERSTOOD THAT ADDITIONAL FUEL FRAGMENTS MAY BE DISCOVERED DURING REMOVAL OF THE SLUDGE.	
M-34-18B	COMPLETE REMOVAL OF ALL K EAST BASIN SPENT NUCLEAR FUEL.	12/31/03
	THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL SPENT NUCLEAR FUEL HAS BEEN REMOVED. IT IS UNDERSTOOD THAT ADDITIONAL FUEL FRAGMENTS MAY BE DISCOVERED DURING REMOVAL OF THE SLUDGE.	
<u>BASIN WATER REMEDIATION</u>		
M-34-19	INITIATE REMOVAL, REPLACEMENT, AND TREATMENT OF CONTAMINATED K BASINS WATER WHERE TRITIUM CONCENTRATIONS EXCEED 300,000 PCI/L.	04/30/04
M-34-20	COMPLETE REMOVAL, REPLACEMENT, AND TREATMENT OF CONTAMINATED K BASINS WATER SUCH THAT THE TRITIUM CONCENTRATION IN THE BASIN IS DECREASED AND IS MAINTAINED AT OR BELOW 300,000 PCI/L. THIS MILESTONE COULD BE SATISFIED BY REMOVING ALL WATER.	10/31/05
M-34-21	INITIATE FULL SCALE K WEST BASIN WATER REMOVAL.	09/30/04
M-34-22	COMPLETE K WEST BASIN WATER REMOVAL.	09/30/05
M-34-23	INITIATE FULL SCALE K EAST BASIN WATER REMOVAL.	10/31/05
M-34-24	COMPLETE K EAST BASIN WATER REMOVAL.	
M-35-00	COMPLETE DATA MANAGEMENT ENHANCEMENTS AS NEGOTIATED AND APPROVED IN M-35-00 INTERIM MILESTONES.	TBD

**LEAD AGENCY:
DUAL**

M-35-09B

CONDUCT BIENNIAL ASSESSMENTS OF
INFORMATION AND DATA ACCESS NEEDS WITH
EPA AND ECOLOGY.

3/31/2000
and
biennially
thereafter

DOE WILL PROPOSE IMPLEMENTATION
SCHEDULES (TPA MILESTONES) FOR
ENHANCEMENTS AS A RESULT OF THE BIENNIAL
ASSESSMENTS.

M-35-09C

CONDUCT BIENNIAL ASSESSMENTS OF
INFORMATION AND DATA ACCESS NEEDS WITH
EPA AND ECOLOGY.

3/31/2002
and
biennially
thereafter

DOE WILL PROPOSE IMPLEMENTATION
SCHEDULES (TPA MILESTONES) FOR
ENHANCEMENTS AS A RESULT OF THE BIENNIAL
ASSESSMENTS.

M-40-00

MITIGATE/RESOLVE TANK SAFETY ISSUES FOR
HIGH PRIORITY WATCH LIST TANKS.

9/30/2001

LEAD AGENCY:
ECOLOGY

HIGH PRIORITY WATCH LIST TANKS ARE THOSE
SINGLE-SHELL AND DOUBLE-SHELL TANKS
IDENTIFIED, IN ACCORDANCE WITH SECTION
3137 OF PUBLIC LAW 101-510, WHICH HAVE A
SERIOUS POTENTIAL FOR RELEASE OF HIGH-
LEVEL WASTE DUE TO UNCONTROLLED
INCREASES IN TEMPERATURE OR PRESSURE.
THESE INCLUDE FLAMMABLE GAS GENERATING
TANKS, FERROCYANIDE CONTAINING TANKS,
ORGANIC/NITRATE CONTAINING TANKS, AND A
HIGH HEAT PRODUCING TANK.

CORRECTIVE ACTION STRATEGIES WILL BE
DEVELOPED FOR THESE TANKS. THIS
MILESTONE WILL BE COMPLETE WHEN
MITIGATION ACTIVITIES, IF REQUIRED, HAVE
BEEN IMPLEMENTED IN ALL WATCH LIST TANKS
TO ENSURE SAFE STORAGE OF WASTE DURING
THE INTERIM PERIOD UNTIL RETRIEVAL FOR
TREATMENT AND/OR DISPOSAL OPERATIONS
BEGIN. FOR THOSE SAFETY ISSUES MITIGATED
PURSUANT TO THIS MILESTONE, SAFETY
RESOLUTION WILL BE DEPENDENT UPON FINAL
TREATMENT OF THE WASTE. MITIGATION WILL
ALLOW, HOWEVER, THE CHARACTERIZATION
RETRIEVAL, ETC., OF THESE WASTES PRIOR TO
FINAL TREATMENT. SOME SAFETY ISSUES MAY
ALSO BE RESOLVED IF (1) RESOLUTION OUT-OF-

TANK IS NOT REQUIRED, OR (2) RESOLUTION OUT-OF -TANK WITH OR WITHOUT TREATMENT TAKES PLACE WITHIN THE TIME PERIOD OF THIS MILESTONE.

THIS MILESTONE WILL BE REVIEWED ON AN ANNUAL BASIS TO IDENTIFY ANY POTENTIAL SCHEDULE ENHANCEMENTS.

M-40-12 RESOLVE NUCLEAR CRITICALITY SAFETY ISSUE. 9/30/1999

RESOLVE THE POTENTIAL FOR NUCLEAR CRITICALITY SAFETY ISSUE BY PROVIDING SUFFICIENT MONITORING, ANALYSIS, AND REVISION OF APPROPRIATE SAFETY DOCUMENTATION. THESE ACTIVITIES MUST ADDRESS THE VARIOUS STAGES OF WASTE TRANSFERENCE AND THE POSSIBILITY FOR CHANGES IN THE POTENTIAL FOR NUCLEAR CRITICALITY INCIDENTS DURING WASTE TRANSFERS.

M-41-00 COMPLETE SINGLE-SHELL TANK INTERIM STABILIZATION. 9/30/2000

LEAD AGENCY: COMPLETE INTERIM STABILIZATION ACTIVITIES
ECOLOGY FOR ALL SINGLE-SHELL TANKS EXCEPT 241-C-106 (TO BE RETRIEVED IN ACCORDANCE WITH MILESTONE M-45-03). COMPLETE INTRUSION PREVENTION FOR ALL SINGLE-SHELL TANKS EXCEPT 241-C-106.

THIS IS DEPENDENT UPON THE FOLLOWING ASSUMPTIONS:

(1) SAFETY STUDIES WILL BE COMPLETED WITH THE OBJECTIVE OF ALLOWING PUMPING IN ACCORDANCE WITH INTERIM MILESTONES.

(2) WORK COMMENCES IN THE TANK FARMS ON OCTOBER 1, 1993, FOR INTERIM STABILIZATION PREPARATIONS, AS REQUIRED BY THE MILESTONE SCHEDULE. DURING THE STAND DOWN IN TANK FARMS, SCHEDULES FOR THE FOLLOWING INTERIM MILESTONES MAY BE AFFECTED: M-41-01, M-41-02, M-41-10, M-41-15 AND M-41-16. EVERY EFFORT WILL BE MADE TO RECOVER THE ORIGINAL SCHEDULE AS SPECIFIED BELOW.

INTERIM MILESTONES FOR START OF PUMPING AND TARGET MILESTONES FOR COMPLETION FOR EACH GROUP OF TANKS WILL BE REVIEWED AND AFFIRMED ANNUALLY WITH ECOLOGY AND EPA. UPON START OF PUMPING, EFFORTS TO CONTINUE PUMPING WILL BE CONTINUOUSLY SUPPORTED SO THAT PUMPING IS CONDUCTED AS EXPEDITIOUSLY AS PRACTICAL.

IF PUMPING IS INTERRUPTED TO A DEGREE THAT JEOPARDIZES THE TARGET MILESTONE, THE UNIT (PROJECT) MANAGERS SHALL MEET IN AN EFFORT TO AGREE ON A RECOVERY PLAN. IF SUCH AN AGREEMENT CANNOT BE MADE AT THE UNIT (PROJECT) MANAGER LEVEL, A FORMAL RECOVERY PLAN WILL BE PREPARED AND SUBMITTED TO ECOLOGY AND EPA FOR APPROVAL THAT SUPPORTS THE MAJOR MILESTONE DATE OF SEPTEMBER 2000, IF TECHNICALLY ACHIEVABLE.

M-41-22	START INTERIM STABILIZATION OF 6 SINGLE SHELL TANKS.	9/30/1997
M-41-23	START INTERIM STABILIZATION OF 8 SINGLE SHELL TANKS.	3/31/1998
M-41-24	START INTERIM STABILIZATION OF 9 SINGLE SHELL TANKS.	9/30/1998
M-41-25	START INTERIM STABILIZATION OF 3 SINGLE SHELL TANKS.	3/31/1999
M-41-26	START INTERIM STABILIZATION OF 2 SINGLE SHELL TANKS.	9/30/1999
M-41-27	COMPLETE SALT WELL PUMPING OF SINGLE SHELL TANKS.	9/30/2000
M-41-27-T03	COMPLETE SALT WELL PUMPING OF 5 SINGLE SHELL TANKS.	9/30/1998
M-41-27-T04	COMPLETE SALT WELL PUMPING OF 8 SINGLE SHELL TANKS.	9/30/1999
M-41-27-T05	COMPLETE SALT WELL PUMPING OF 16 SINGLE SHELL TANKS.	9/30/2000
M-42-00	PROVIDE ADDITIONAL DOUBLE-SHELL TANK CAPACITY.	TBD

**LEAD AGENCY:
ECOLOGY**

M-43-00	COMPLETE TANK FARM UPGRADES.	6/30/2005
LEAD AGENCY: ECOLOGY		
M-43-12	START CONSTRUCTION FOR UPGRADES IN THE FIRST TANK FARM.	6/30/1999
M-43-13	START CONSTRUCTION FOR UPGRADES IN THE SECOND TANK FARM.	6/30/2000
M-43-14	START CONSTRUCTION FOR UPGRADES IN THE THIRD TANK FARM.	3/31/2001
M-43-15	START CONSTRUCTION FOR UPGRADES IN THE FOURTH TANK FARM.	3/31/2002
M-43-16	START CONSTRUCTION FOR UPGRADES IN THE FIFTH TANK FARM.	6/30/2003
M-44-00A	COMPLETE DELIVERY OF INFORMATION REQUIREMENTS AS IDENTIFIED IN THE ANNUALLY SUBMITTED WIRD.	9/30/2002
LEAD AGENCY: ECOLOGY		
M-44-13C	SUBMIT DRAFT WIRD TO ECOLOGY FOR FY 2000. ECOLOGY WILL PROVIDE COMMENTS WITHIN 30 DAYS AFTER SUBMITTAL.	6/30/1999
M-44-13D	SUBMIT DRAFT WIRD TO ECOLOGY FOR FY 2001. ECOLOGY WILL PROVIDE COMMENTS WITHIN 30 DAYS AFTER SUBMITTAL.	6/30/2000
M-44-13E	SUBMIT DRAFT WIRD TO ECOLOGY FOR FY 2002. ECOLOGY WILL PROVIDE COMMENTS WITHIN 30 DAYS AFTER SUBMITTAL.	6/30/2001
M-44-14C	SUBMIT FINAL WIRD FOR FY 2000 TO ECOLOGY. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL DELIVERABLE THEN ECOLOGY WILL ISSUE A FINAL DECISION NO LATER THAN SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE DELIVERABLE. RL WILL IMPLEMENT THE FINAL DECISION ISSUED BY ECOLOGY. IF RL DISPUTES THE FINAL DECISION, ECOLOGY'S FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.	8/31/1999

M-44-14D	SUBMIT FINAL WIRD FOR FY 2001 TO ECOLOGY. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL DELIVERABLE THEN ECOLOGY WILL ISSUE A FINAL DECISION NO LATER THAN SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE DELIVERABLE. RL WILL IMPLEMENT THE FINAL DECISION ISSUED BY ECOLOGY. IF RL DISPUTES THE FINAL DECISION, ECOLOGY'S FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.	8/31/2000
M-44-14E	SUBMIT FINAL WIRD FOR FY 2002 TO ECOLOGY. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL DELIVERABLE THEN ECOLOGY WILL ISSUE A FINAL DECISION NO LATER THAN SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE DELIVERABLE. RL WILL IMPLEMENT THE FINAL DECISION ISSUED BY ECOLOGY. IF RL DISPUTES THE FINAL DECISION, ECOLOGY'S FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.	8/31/2001
M-44-15C	ISSUE CHARACTERIZATION DELIVERABLES CONSISTENT WITH WIRD DEVELOPED FOR FY 1999.	9/30/1999
M-44-15D	ISSUE CHARACTERIZATION DELIVERABLES CONSISTENT WITH WIRD DEVELOPED FOR FY 2000.	9/30/2000
M-44-15E	ISSUE CHARACTERIZATION DELIVERABLES CONSISTENT WITH WIRD DEVELOPED FOR FY 2001.	9/30/2001
M-44-15F	ISSUE CHARACTERIZATION DELIVERABLES CONSISTENT WITH WIRD DEVELOPED FOR FY 2002.	9/30/2002
M-44-16C	COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR HLW TANKS FOR WHICH SAMPLING AND ANALYSIS WERE COMPLETED PER WIRD, INTO AN ELECTRONIC DATABASE. OFF WIRD-SITE ACCESS TO THE DATABASE CONTAINING TANK WASTE CHARACTERIZATION INFORMATION WILL BE MADE AVAILABLE TO EPA AND ECOLOGY.	9/30/1999 per FY 99

M-44-16D	COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR HLW TANKS FOR WHICH SAMPLING AND ANALYSIS WERE COMPLETED PER WIRD, INTO AN ELECTRONIC DATABASE. OFF-SITE ACCESS TO THE DATABASE CONTAINING TANK WASTE CHARACTERIZATION INFORMATION WILL BE MADE AVAILABLE TO EPA AND ECOLOGY.	9/30/2000 per FY 2000 WIRD
M-44-16E	COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR HLW TANKS FOR WHICH SAMPLING AND ANALYSIS WERE COMPLETED PER WIRD, INTO AN ELECTRONIC DATABASE. OFF-SITE ACCESS TO THE DATABASE CONTAINING TANK WASTE CHARACTERIZATION INFORMATION WILL BE MADE AVAILABLE TO EPA AND ECOLOGY.	9/30/2001 per FY 2001 WIRD
M-44-16F	COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR HLW TANKS FOR WHICH SAMPLING AND ANALYSIS WERE COMPLETED PER WIRD, INTO AN ELECTRONIC DATABASE. OFF-SITE ACCESS TO THE DATABASE CONTAINING TANK WASTE CHARACTERIZATION INFORMATION WILL BE MADE AVAILABLE TO EPA AND ECOLOGY.	9/30/2002 per FY 2002 WIRD
M-45-00	COMPLETE CLOSURE OF ALL SINGLE SHELL TANK FARMS.	9/30/2024
LEAD AGENCY: ECOLOGY	CLOSURE WILL FOLLOW RETRIEVAL OF AS MUCH TANK WASTE AS TECHNICALLY POSSIBLE, WITH TANK WASTE RESIDUES NOT TO EXCEED 360 CUBIC FEET (CU. FT.) IN EACH OF THE 100 SERIES TANKS, 30 CU. FT. IN EACH OF THE 200 SERIES TANKS, OR THE LIMIT OF WASTE RETRIEVAL TECHNOLOGY CAPABILITY, WHICHEVER IS LESS. IF THE DOE BELIEVES THAT WASTE RETRIEVAL TO THESE LEVELS IS NOT POSSIBLE FOR A TANK, THEN DOE WILL SUBMIT A DETAILED EXPLANATION TO EPA AND ECOLOGY EXPLAINING WHY THESE LEVELS CANNOT BE ACHIEVED, AND SPECIFYING THE QUANTITIES OF WASTE THAT THE DOE PROPOSES TO LEAVE IN THE TANK. THE REQUEST WILL BE APPROVED OR DISAPPROVED BY EPA AND ECOLOGY ON A TANK-BY-TANK BASIS. PROCEDURES FOR MODIFYING THE RETRIEVAL CRITERIA LISTED ABOVE, AND FOR	

PROCESSING WAIVER REQUESTS ARE OUTLINED IN THE APPENDIX TO THIS CHANGE REQUEST.

FOLLOWING COMPLETION OF RETRIEVAL, SIX OPERABLE UNITS (TANK FARMS), AS DESCRIBED IN APPENDIX C (200-BP-7, 200-PO-3, 200-RO-4, 200-TP-5, 200-TP-6, 200-UP-3), WILL BE REMEDIATED IN ACCORDANCE WITH THE APPROVED CLOSURE PLANS. FINAL CLOSURE OF THE OPERABLE UNITS (TANK FARMS) SHALL BE DEFINED AS REGULATORY APPROVAL OF COMPLETION OF CLOSURE ACTIONS AND COMMENCEMENT OF POST-CLOSURE ACTIONS.

FOR THE PURPOSES OF THIS AGREEMENT ALL UNITS LOCATED WITHIN THE BOUNDARY OF EACH TANK FARM WILL BE CLOSED IN ACCORDANCE WITH WAC 173-303-610. THIS INCLUDES CONTAMINATED SOIL AND ANCILLARY EQUIPMENT THAT WERE PREVIOUSLY DESIGNATED AS RCRA PAST PRACTICE UNITS. ADOPTING THIS APPROACH WILL ENSURE EFFICIENT USE OF FUNDING AND WILL REDUCE POTENTIAL DUPLICATION OF EFFORT VIA APPLICATION OF DIFFERENT REGULATORY REQUIREMENTS: WAC 173-303-610 FOR CLOSURE OF THE TSD UNITS AND RCRA SECTION 3004(U) FOR REMEDIATION OF RCRA PAST PRACTICE UNITS.

ALL PARTIES RECOGNIZE THAT THE RECLASSIFICATION OF PREVIOUSLY IDENTIFIED RCRA PAST PRACTICE UNITS TO ANCILLARY EQUIPMENT ASSOCIATED WITH THE TSD UNIT IS STRICTLY FOR APPLICATION OF A CONSISTENT CLOSURE APPROACH. UPGRADES TO PREVIOUSLY CLASSIFIED RCRA PAST PRACTICE UNITS TO ACHIEVE COMPLIANCE WITH RCRA OR DANGEROUS WASTE INTERIM STATUS TECHNICAL STANDARDS FOR TANK SYSTEMS (I.E., SECONDARY CONTAINMENT, INTEGRITY ASSESSMENTS, ETC.) WILL NOT BE MANDATED AS A RESULT OF THIS ACTION. HOWEVER, ANY EQUIPMENT MODIFIED OR REPLACED WILL MEET INTERIM STATUS STANDARDS. IN EVALUATING CLOSURE OPTIONS FOR SINGLE-SHELL TANKS, CONTAMINATED SOIL, AND ANCILLARY EQUIPMENT, ECOLOGY AND EPA WILL CONSIDER COST, TECHNICAL PRACTICABILITY, AND POTENTIAL EXPOSURE TO RADIATION. CLOSURE OF ALL UNITS WITHIN

THE BOUNDARY OF A GIVEN TANK FARM WILL BE ADDRESSED IN A CLOSURE PLAN FOR THE SINGLE-SHELL TANKS.

M-45-02	SUBMIT ANNUAL UPDATES TO SST RETRIEVAL SEQUENCE DOCUMENT.	9/30/2017
	THIS PROVIDES FOR AN ANNUAL UPDATE OF AN SST RETRIEVAL SEQUENCE DOCUMENT THAT WILL DEFINE THE TANK SELECTION CRITERIA, TANK SELECTION RATIONALE, REFERENCE RETRIEVAL METHOD(S) FOR EACH TANK, AND THE ESTIMATED RETRIEVAL SCHEDULES. THE ANNUAL UPDATES WILL BE SUBMITTED TO ECOLOGY FOR APPROVAL.	
M-45-02D	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL. (SEE TEXT OF M-45-02 FOR ADDITIONAL DETAILS).	9/30/1999
M-45-02E	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL. (SEE TEXT OF M-45-02 FOR ADDITIONAL DETAILS).	9/30/2000
M-45-02F	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL. (SEE TEXT OF M-45-02 FOR ADDITIONAL DETAILS).	9/30/2001
M-45-02G	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL. (SEE TEXT OF M-45-02 FOR ADDITIONAL DETAILS).	9/30/2002
M-45-02H	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL. (SEE TEXT OF M-45-02 FOR ADDITIONAL DETAILS).	9/30/2003
M-45-02I	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL. (SEE TEXT OF M-45-02 FOR ADDITIONAL DETAILS).	9/30/2004 and annually thereafter
M-45-03-T01	COMPLETE SST WASTE RETRIEVAL DEMONSTRATION.	9/30/2003

INITIATE AND COMPLETE A FULL SCALE DEMONSTRATION OF SST RETRIEVAL TECHNOLOGY. THIS DEMONSTRATION WILL BE CONSIDERED COMPLETE WHEN NO LESS THAN 99% OF THE WASTE INVENTORY IS REMOVED FROM THE TANK.

M-45-03-T02	INITIATE FINAL RETRIEVAL DEMONSTRATION OF C-106.	6/30/2002
	INITIATE FINAL RETRIEVAL OF TANK 241-C-106 TO COMPLETE INITIAL DEMONSTRATION OF SST RETRIEVAL TECHNOLOGIES.	
M-45-03A	INITIATE SLUICING RETRIEVAL OF C-106.	10/31/1997
	INITIATE SLUICING RETRIEVAL OF TANK 241-C-106 TO RESOLVE THE HIGH-HEAT SAFETY ISSUE AND DEMONSTRATE WASTE RETRIEVAL.	
M-45-04-T01	PROVIDE INITIAL SINGLE-SHELL TANK RETRIEVAL SYSTEMS.	11/30/2003
	COMPLETE CONSTRUCTION AND RELATED TESTING OF THE INITIAL SST RETRIEVAL SYSTEMS. THIS MILESTONE WILL PROVIDE RETRIEVAL SYSTEMS FOR AN ENTIRE SINGLE-SHELL TANK FARM OR AN EQUIVALENT NUMBER OF TANKS.	
M-45-04-T02	COMPLETE DESIGN FOR THE INITIAL SST RETRIEVAL SYSTEMS.	12/31/2000
M-45-04-T03	COMPLETE CONSTRUCTION FOR THE INITIAL SST RETRIEVAL SYSTEMS.	6/30/2003
M-45-05	RETRIEVE WASTE FROM ALL REMAINING SINGLE-SHELL TANKS.	9/30/2018
	COMPLETE WASTE RETRIEVAL FROM ALL REMAINING SINGLE-SHELL TANKS. RETRIEVAL STANDARDS AND COMPLETION DEFINITIONS ARE PROVIDED UNDER THE MAJOR MILESTONE. THE SCHEDULE REFLECTS RETRIEVAL ACTIVITIES ON A FARM-BY-FARM BASIS. IT ALSO ALLOWS FLEXIBILITY TO RETRIEVE TANKS FROM VARIOUS FARMS IF DESIRED TO SUPPORT SAFETY ISSUE RESOLUTION, PRETREATMENT OR DISPOSAL FEED REQUIREMENTS, OR OTHER PRIORITIES.	
M-45-05-T01	INITIATE TANK WASTE RETRIEVAL FROM ONE SINGLE-SHELL TANK.	12/31/2003

M-45-05-T02	INITIATE TANK RETRIEVAL FROM TWO ADDITIONAL SINGLE-SHELL TANKS.	9/30/2004
M-45-05-T03	INITIATE TANK RETRIEVAL FROM THREE ADDITIONAL SINGLE-SHELL TANKS.	9/30/2005
M-45-05-T04	INITIATE TANK RETRIEVAL FROM FOUR ADDITIONAL SINGLE-SHELL TANKS.	9/30/2006
M-45-05-T05	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	9/30/2007


Footnote

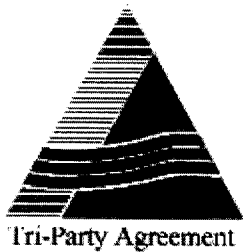
¹Unless otherwise noted, the term "K basins" is used here to denote both K East and K West basins.

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APPENDIX 2 ACTION PLAN

APPENDIX E KEY INDIVIDUALS

	U.S. Environmental Protection Agency Region 10	Washington State Department of Ecology	U.S. Department of Energy, Richland Operations
Executive Managers	Project Manager for the Hanford Project Office (509) 376-9529	Program Manager for the Nuclear Waste Program (360) 407-7150	Assistant Manager for WasteManagement (509) 376-7434 Assistant Manager for the TankWaste Remediation System (509) 376-7591 Assistant Manager for Environmental Restoration (509) 376-6628 Assistant Manager for Facility Transition (509) 376-7435 Assistant Manager for TechnologyManagement (509) 372-4005 Director, EnvironmentalAssurance, Permits, and Policy (509) 376-5441
	Environmental Protection Agency Region 10 712 Swift Blvd., Suite 5 Richland, WA 99352	Washington Department of Ecology Nuclear Waste Program P.O. Box 47600 Olympia, WA 98504- 7600	U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352

Community Relations Contacts	Public Involvement Representative (509) 376-8631	Public Involvement Supervisor (509) 735-7581	Public Involvement Program Manager (509) 373-5647
	Environmental Protection Agency Region 10 712 Swift Blvd., Suite 5 Richland, WA 99352	Washington Department of Ecology Nuclear Waste Program 1315 W. 4th Avenue Kennewick, WA 99336-6018	U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352


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1 - 800 - 321 - 2008

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APPENDIX 2 ACTION PLAN

APPENDIX F

Supporting Technical Plans and Procedures

Document	Status
Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington	WHC-MR-0039 Approved by DOE, EPA Ecology on August 21, 1990
Data Quality Strategy for Hanford Site Characterization	"Proposed Data Quality Strategy for Hanford Site Characterization," WHC-SD-EN-AP-023, issued Jan. 19, 1991
Environmental Investigation and Site Characterization Manual (contains specific procedures governing Site investigation activities)	CM-7-7 Issued, September 1988
Data Reporting Requirements for the Hanford Site	To be developed
Guidance on Preparation of Laboratory Quality Assurance Plans	Draft issued
Data Validation Guidelines for Contract Laboratory Program Organic Analyses	WHC-CM-5-3 issued August 31, 1990
Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses	WHC-CM-5-3 issued August 31, 1990

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APPENDIX 2 ACTION PLAN

APPENDIX G - DATA MANAGEMENT INITIATIVES

September 20, 1993

LOCATIONAL DATA COLLECTION STANDARDS

Purpose:

Establish standards to be followed by all organizations collecting locational information at the Hanford Site. This will ensure that during the collection of locational information that standards and guidelines will be followed to assure accuracy and usability of the information.

A set of minimum standards for information needs associated with all X, Y, and Z coordinate data (surveyed or GPS) will be defined. Some examples of the ancillary information to be carried include: accuracy; coordinate type; type of collection method used; data collector; and the intended use and application.

DATABASE DOCUMENTATION AND LISTING OF EXISTING SYSTEMS UPDATE

Purpose:

Undertake a full inventory of existing data management systems, their location, information contained in them, and the source of their information. With the existing and growing databases on the Hanford Site, an effort to understand what computer/automated systems exist on site needs to occur. This task should be assigned to all contractors. Their respective management should assign and require this task to be fulfilled internally.

DATA REFERENCE SEARCH INFORMATION SYSTEM

Purpose:

Create a system to provide information regarding site characterization historic documents, records,

and photography that directly relate to TPA activities.

All resulting information gathered needs to be indexed, referenced, and automated. This will reduce redundant data collection of historic documents on closely associated operable units, and thus save valuable research time and costs.

EII PROCEDURES UPDATE

Purpose:

Disseminate the data and locational standards and guideline to the users in the field. Coordinate EII instructions and data collection to ensure EII's are reviewed and updated to incorporate data management changes, standards, and guidelines for managing information.

DIGITAL GIS BASE MAP DATA COLLECTION

Purpose:

Provide the necessary base map information to carry out compliance and cleanup activities at the Hanford Site. This milestone will ensure TPA participants an accurate, dependable and controlled set of base map data.

SITEWIDE ORTHOPHOTOGRAPHY PROGRAM

Purpose:

Establish a comprehensive, usable and long-term site-wide historical record of the Hanford Site. The orthophotography will provide the site with a single up-to-date source for all geographic baseline information from which to obtain automated spatial information.

MONUMENT CONTROL NETWORK SYSTEM

Purpose:

With the transition from the Hanford Plant Coordinates from the WA State Plane Coordinate system, one, up-to-date official survey monument system needs to be adopted by all contractors and used in all engineering and GPS survey work conducted on site. This will enable a more uniform collection standard, and have assurance that all information collected meets that standard.

ENGINEERING SURVEY DATA COLLECTION STANDARDS

Purpose:

Develop procedures and guidelines for engineering survey data collection, recording, and storage. At present, engineering surveys are conducted on site without regard to the importance or cost associated with the collection or generation of locational information.

STANDARD WELL ID/NAMING AND LOCATION COORDINATES

Purpose:

Adopt a unique site-wide naming standard for well designations at the Hanford Site. These standards will be maintained and available in an on-line computer system. This system would also function as a cross reference table between existing standards and previous standards, and would also store the official X, Y, and Z coordinate location to be used by all other computer systems.

HISTORIC DATA MANAGEMENT**Purpose:**

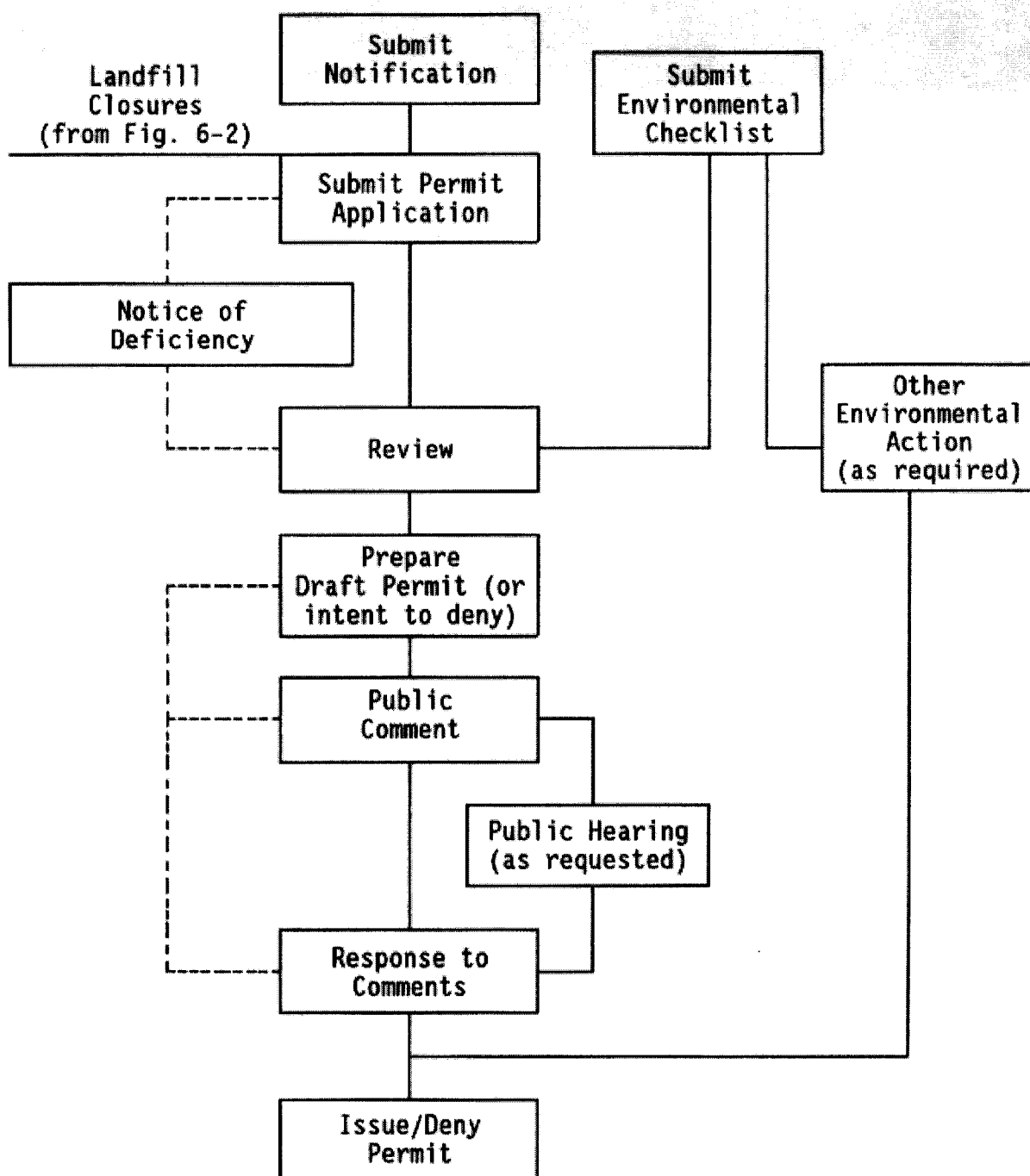
Establish a Site historical data management system. As TPA activities develop, a system describing how the site looked, where buildings were located before D&D activities, and where historic waste sites existed will need to be developed.

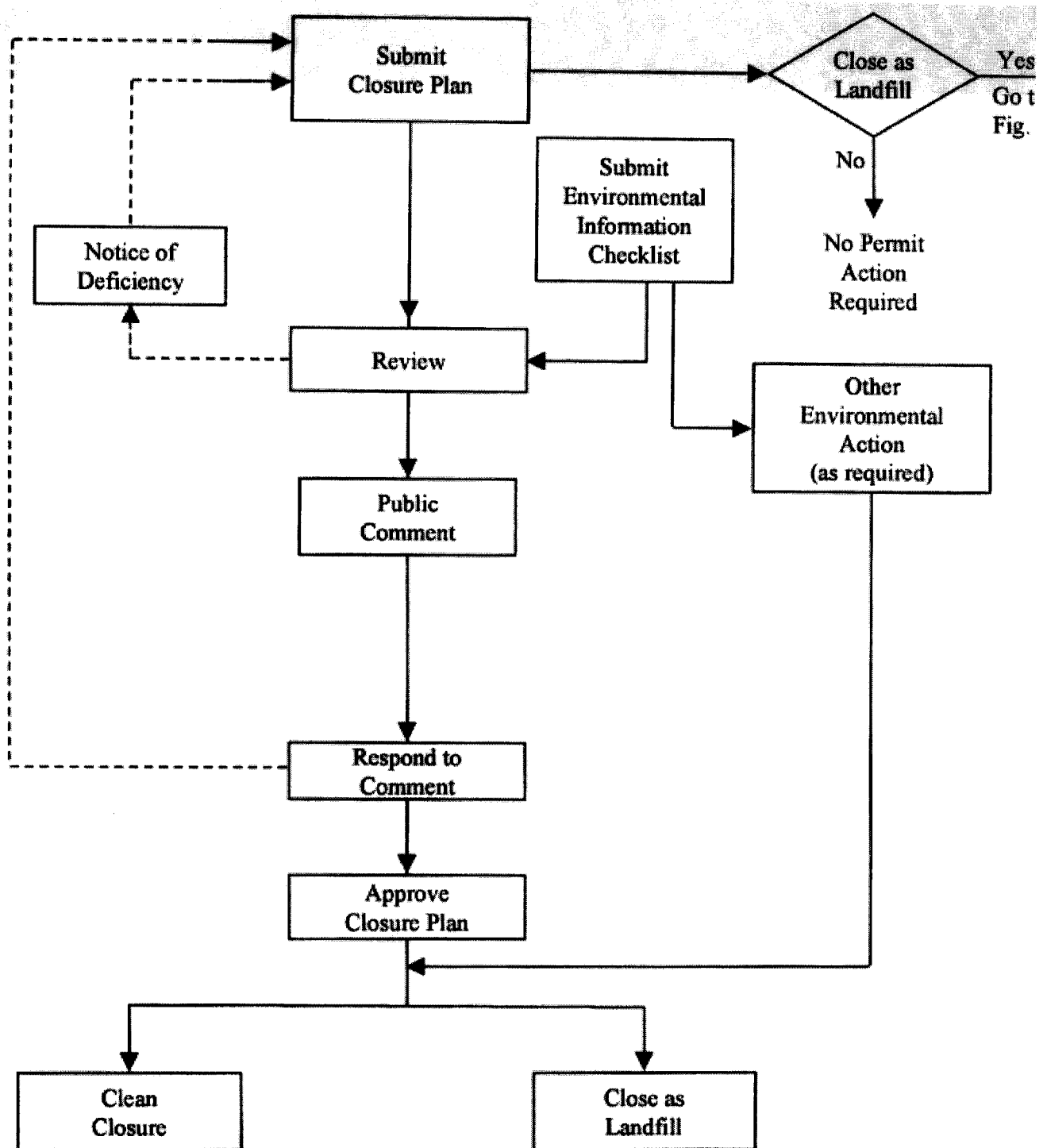
At present, when buildings are removed from an area, the buildings are also removed from the engineering drawing without regard to its historical or environmental significance. In some cases these same buildings and their footprints are later classified as waste sites. Numerous types of historic information need to be saved, inventoried and tracked:

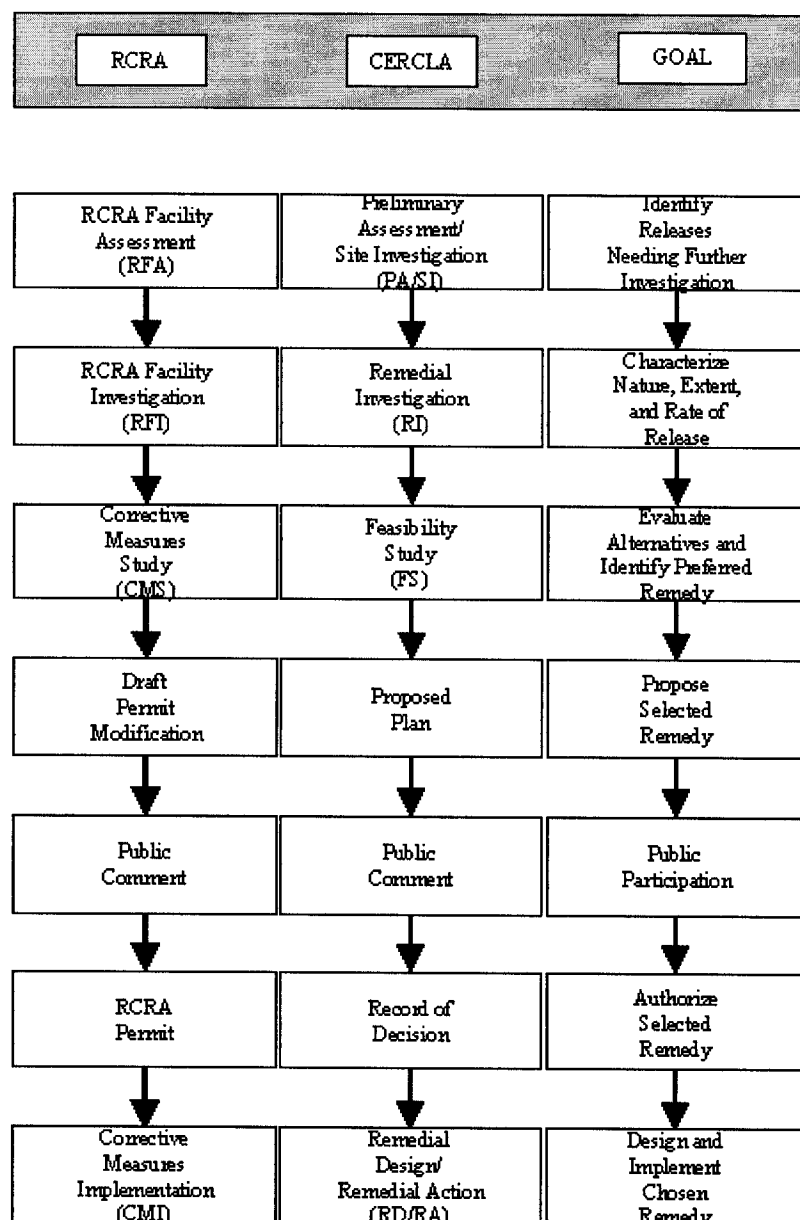
Photography
CAD Infrastructure Drawings
Written Documents
Borehole Logs

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CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

RCRA = Resource Conservation and Recovery Act

Note: Interim response actions or interim measures can be performed at any point in the remedial action/corrective measure process.

Figure 7-2. Comparison of Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes.

<http://www.hanford.gov/tpa/images/fig7-2.gif>

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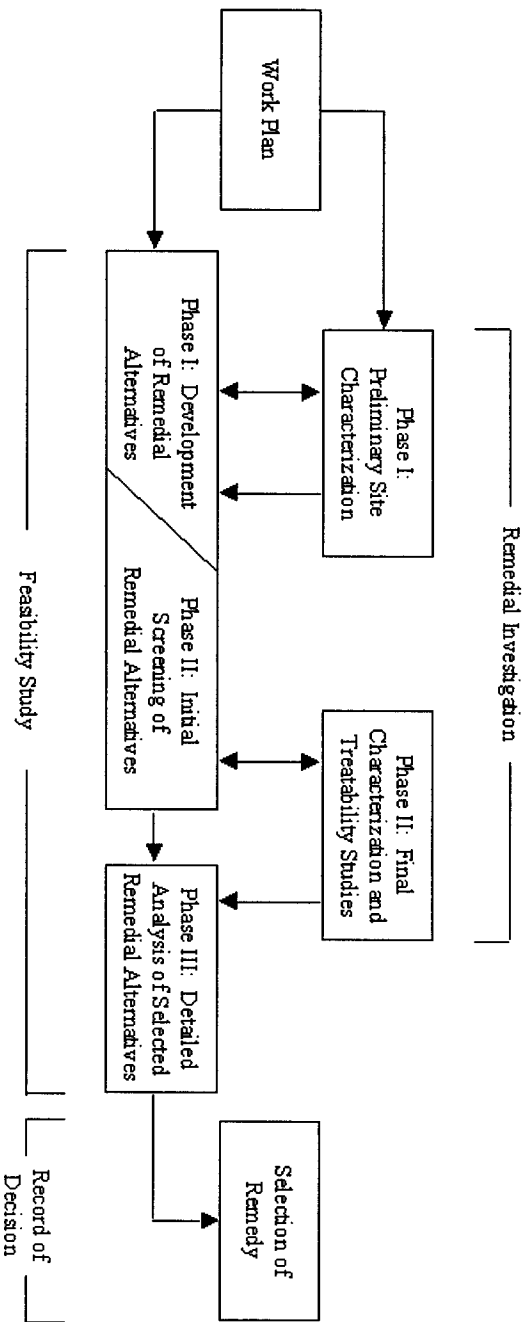


Figure 7-3. Overview of the Remedial Investigation/Feasibility Study Process.

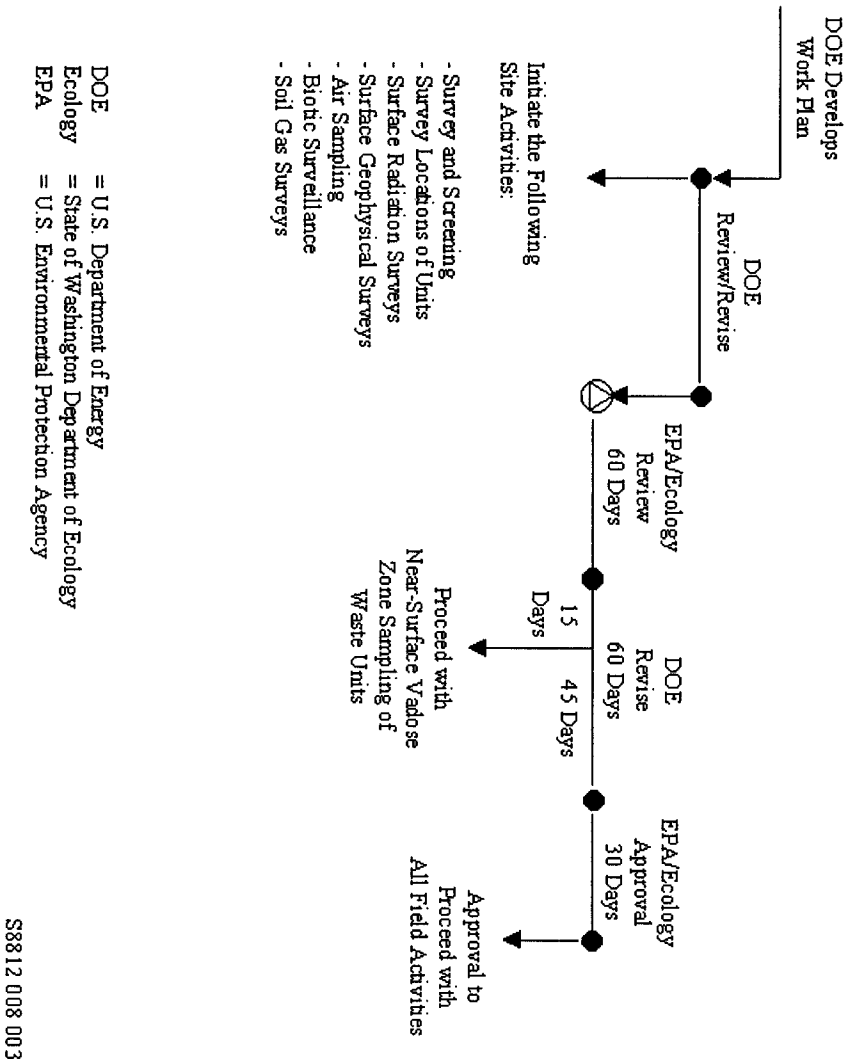
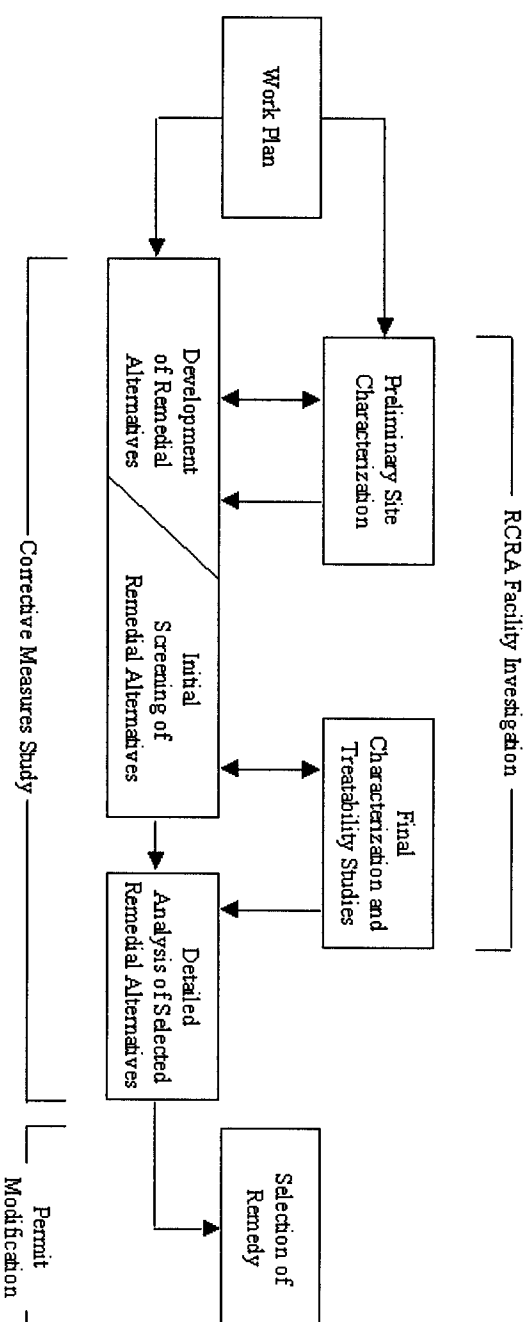


Figure 7-4. Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval.



S8902098.2

Figure 7-5. Overview of RCRA Facility Investigation/Corrective Measures Study Process.

Figure 8-1 Predecommissioning Planning

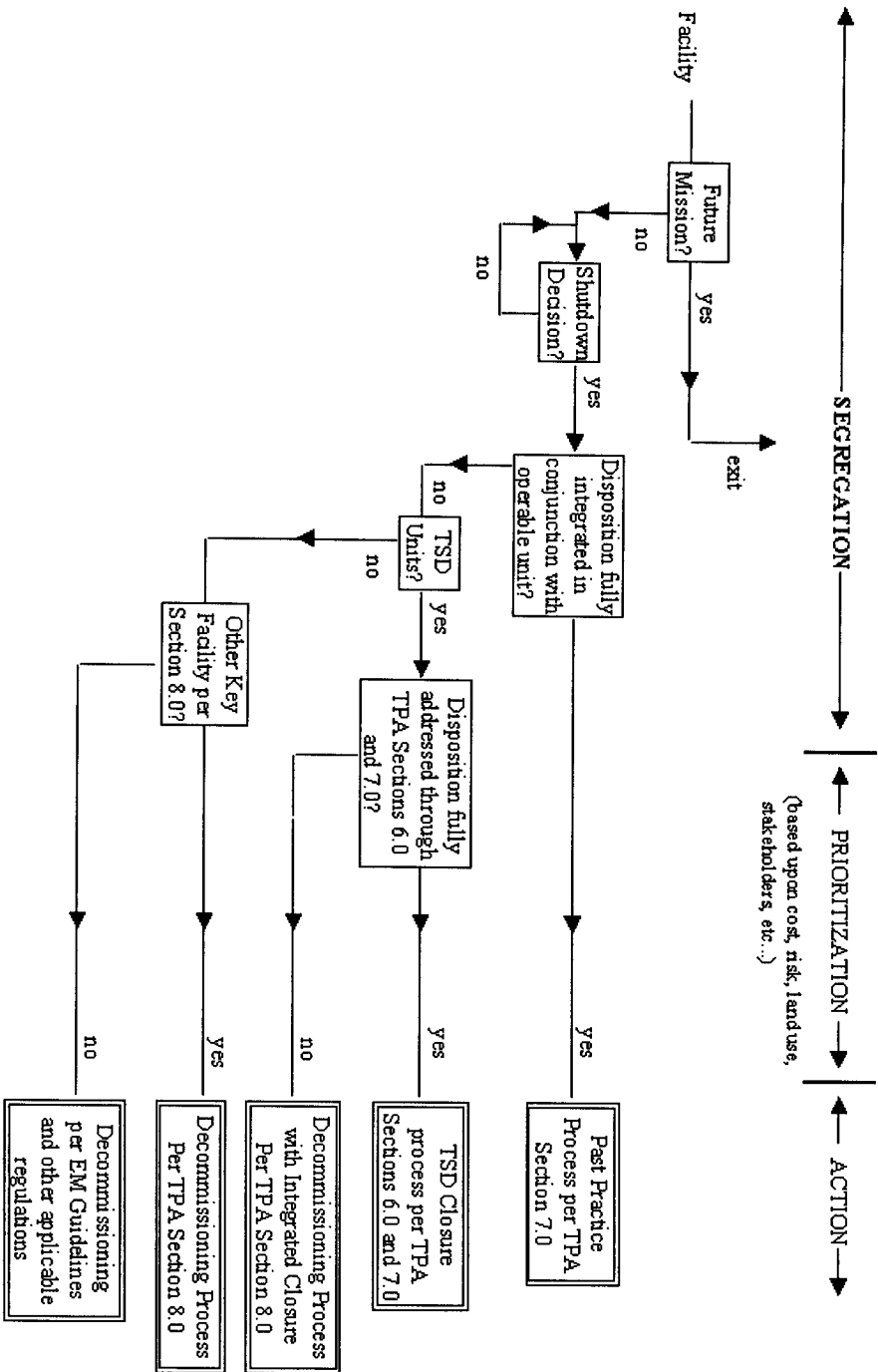


Figure 8-3 Transition Phase Breakdown

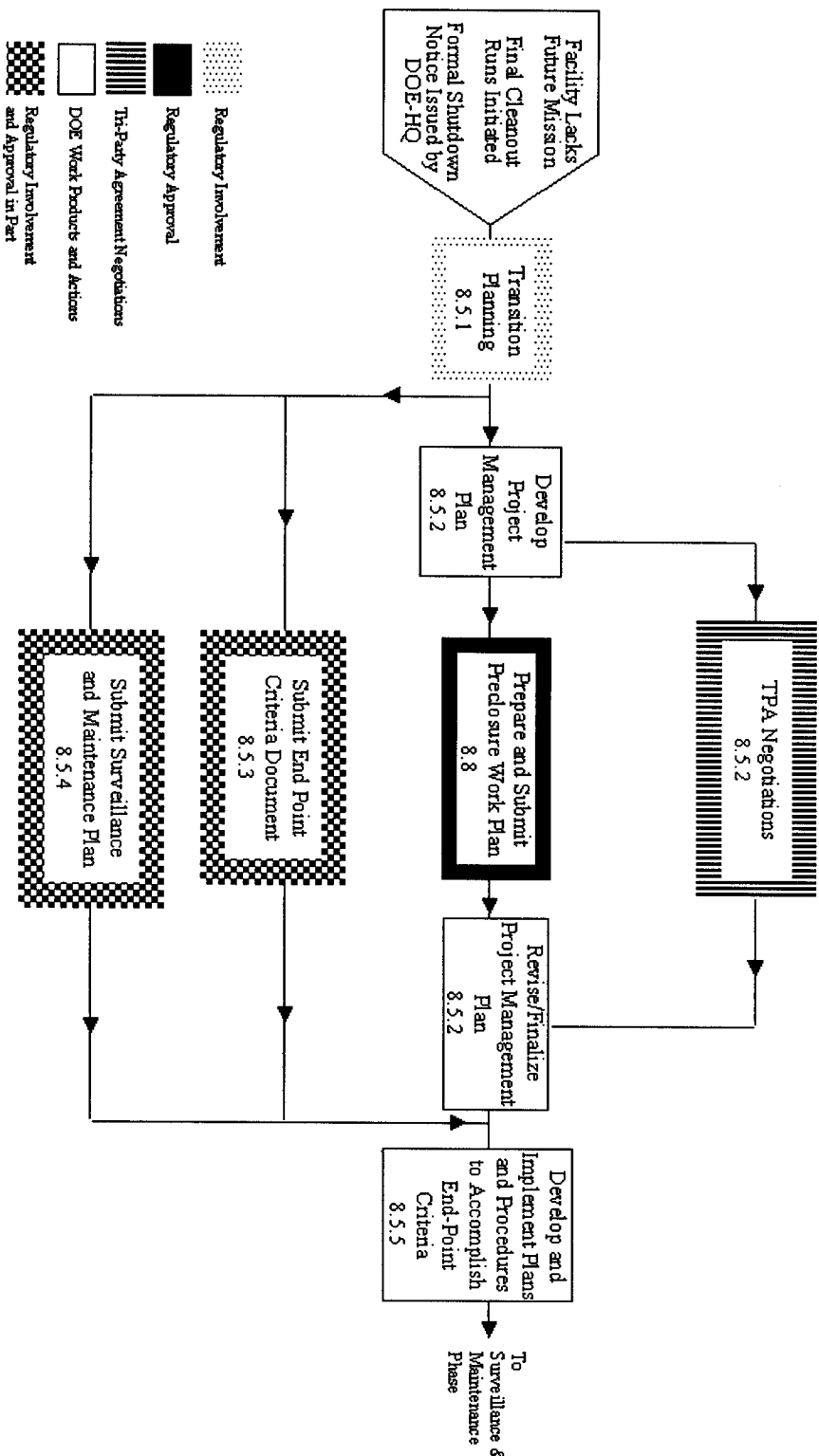


Figure 8-4 Surveillance and Maintenance Phase Breakdown

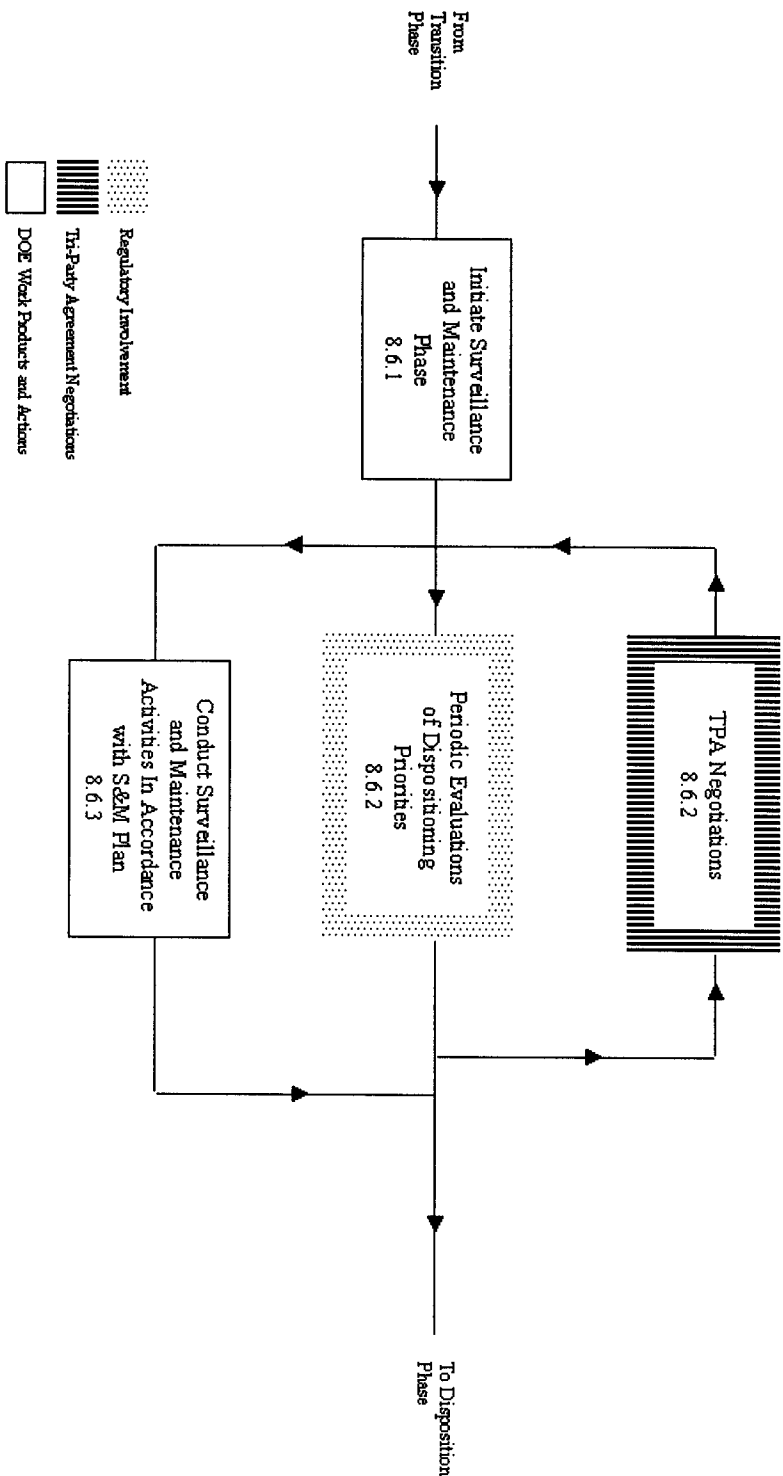
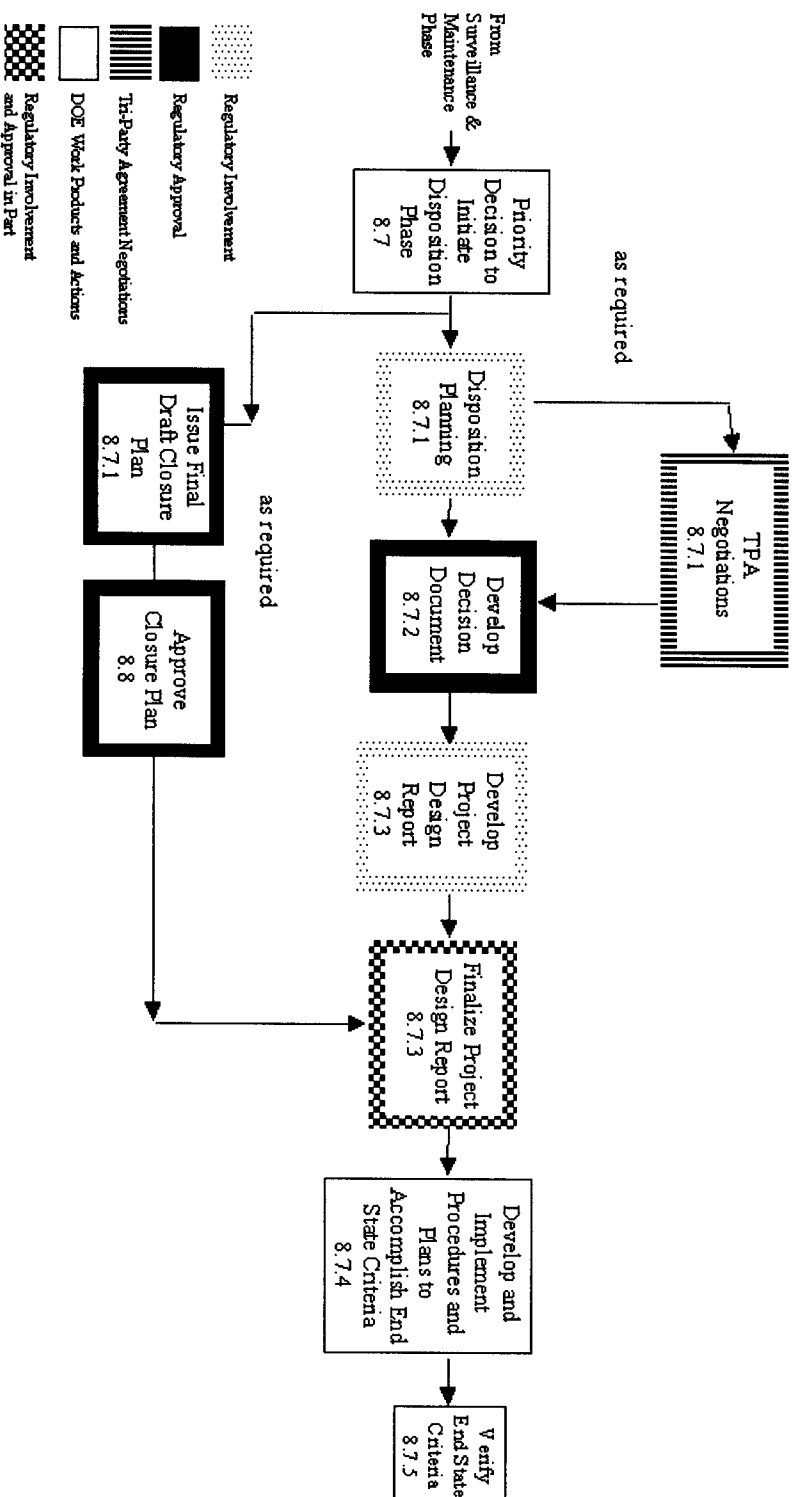
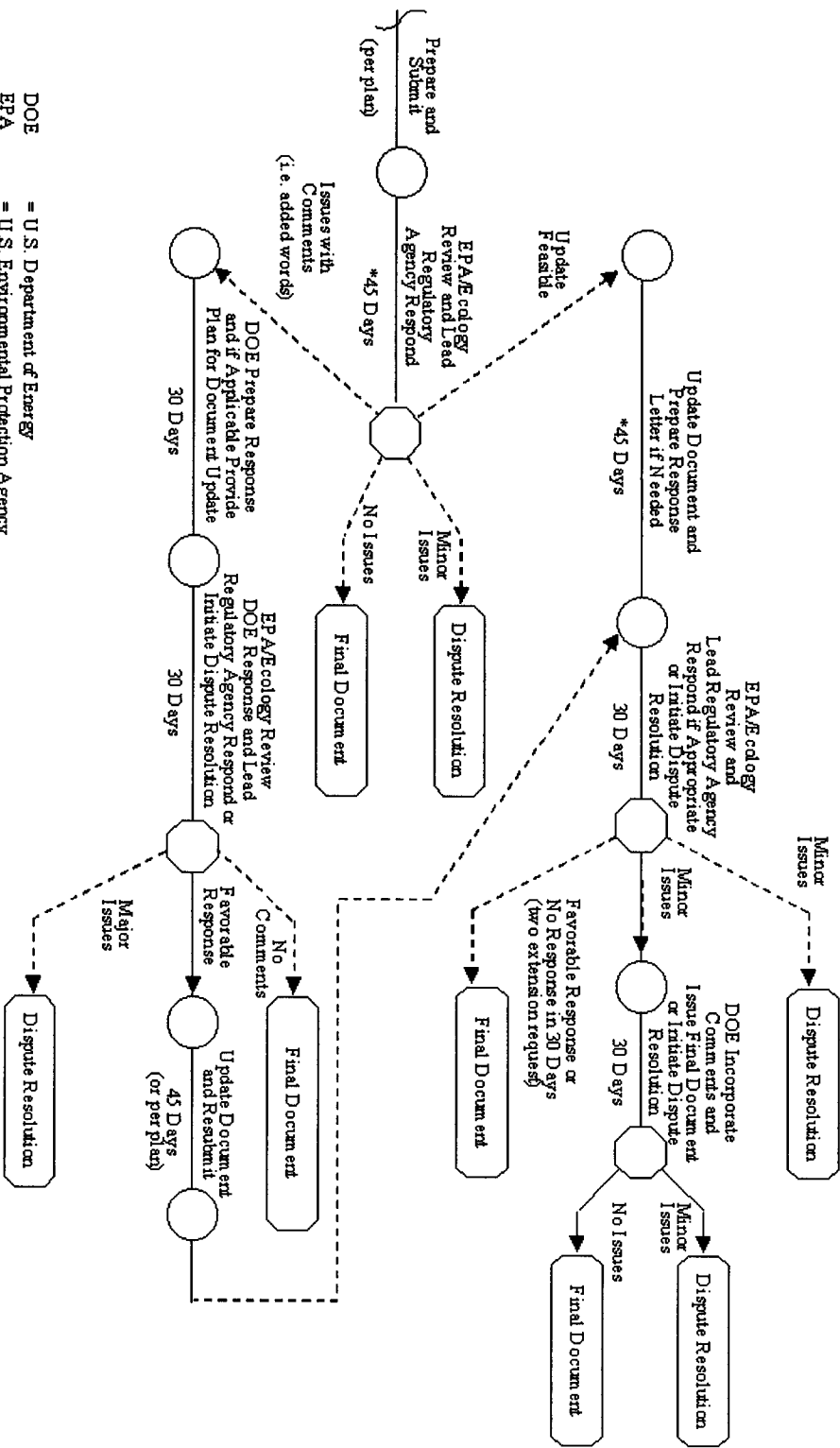


Figure 8-5 Disposition Phase Breakdown

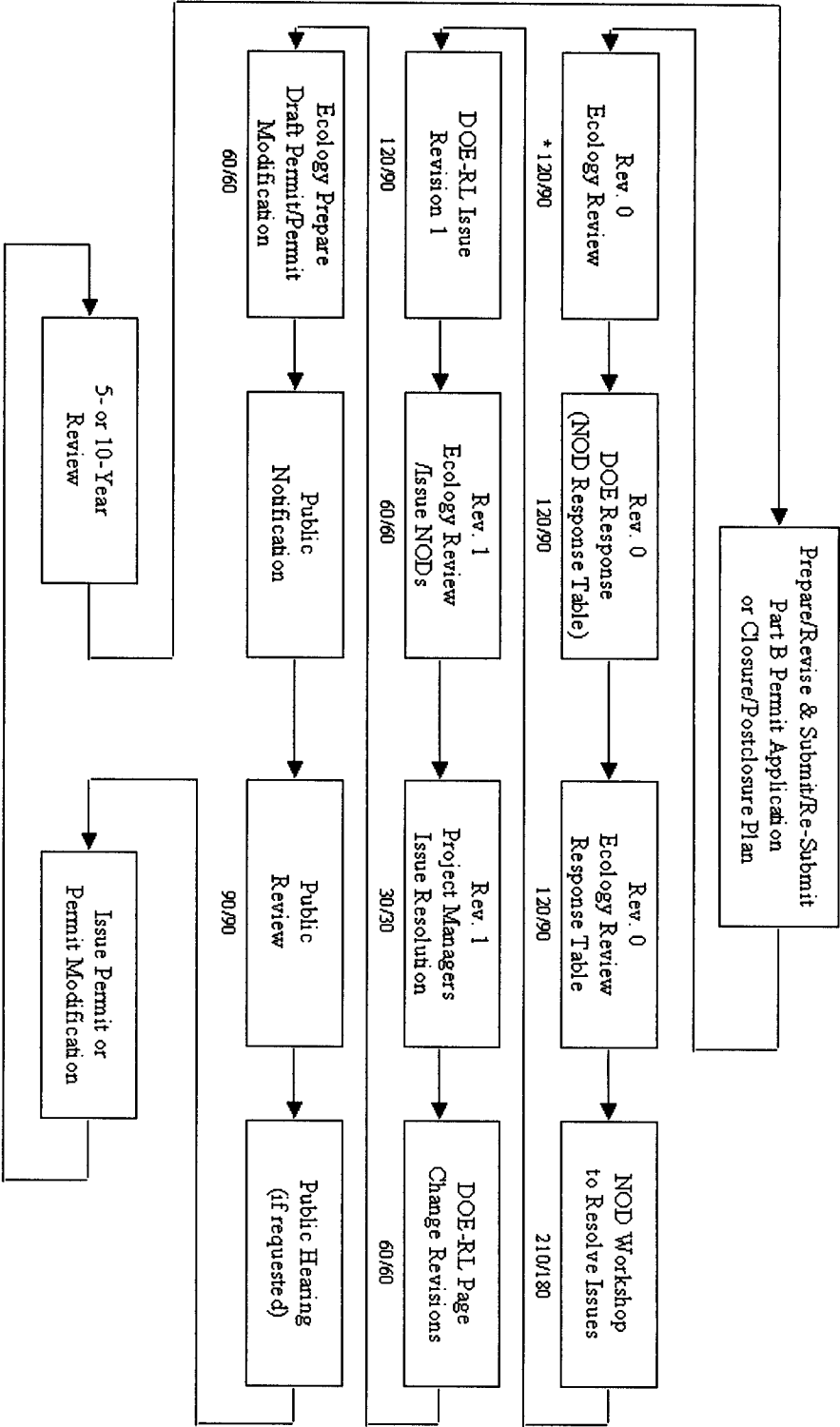




DOE = U.S. Department of Energy
EPA = U.S. Environmental Protection Agency
Ecology = State of Washington Department of Ecology

*With exception of 60 days for RI/FS work plans and RI/CMs work plans

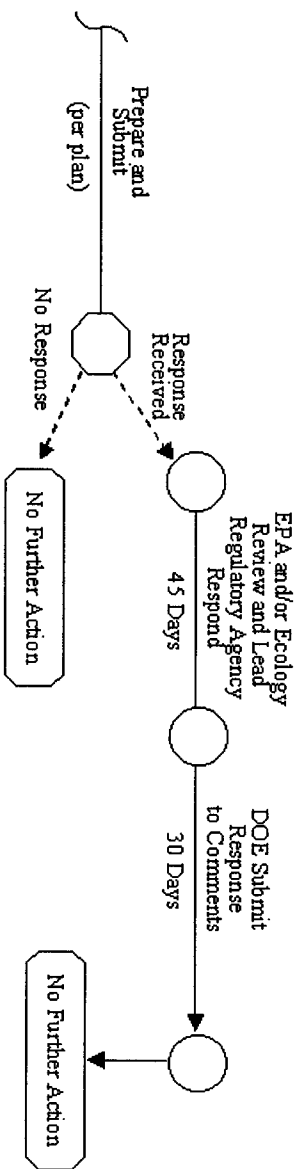
Figure 9-1. Review and Comment on Primary Documents. (See Figure 9-2 for Part B Permit Application and Closure/Postclosure Plan Review)



* Permit or Closure/Postclosure Days for Completion

DOE = U.S. Department of Energy
Ecology = State of Washington Department of Ecology
NOD = Notice of Deficiency

Figure 9-2. Part B Permit Application and Closure/Postclosure Plan Process Flowchart.



DOE = U.S. Department of Energy
EPA = U.S. Environmental Protection Agency
Ecology = State of Washington Department of Ecology

Figure 9-3. Review and Comment on Secondary Documents.